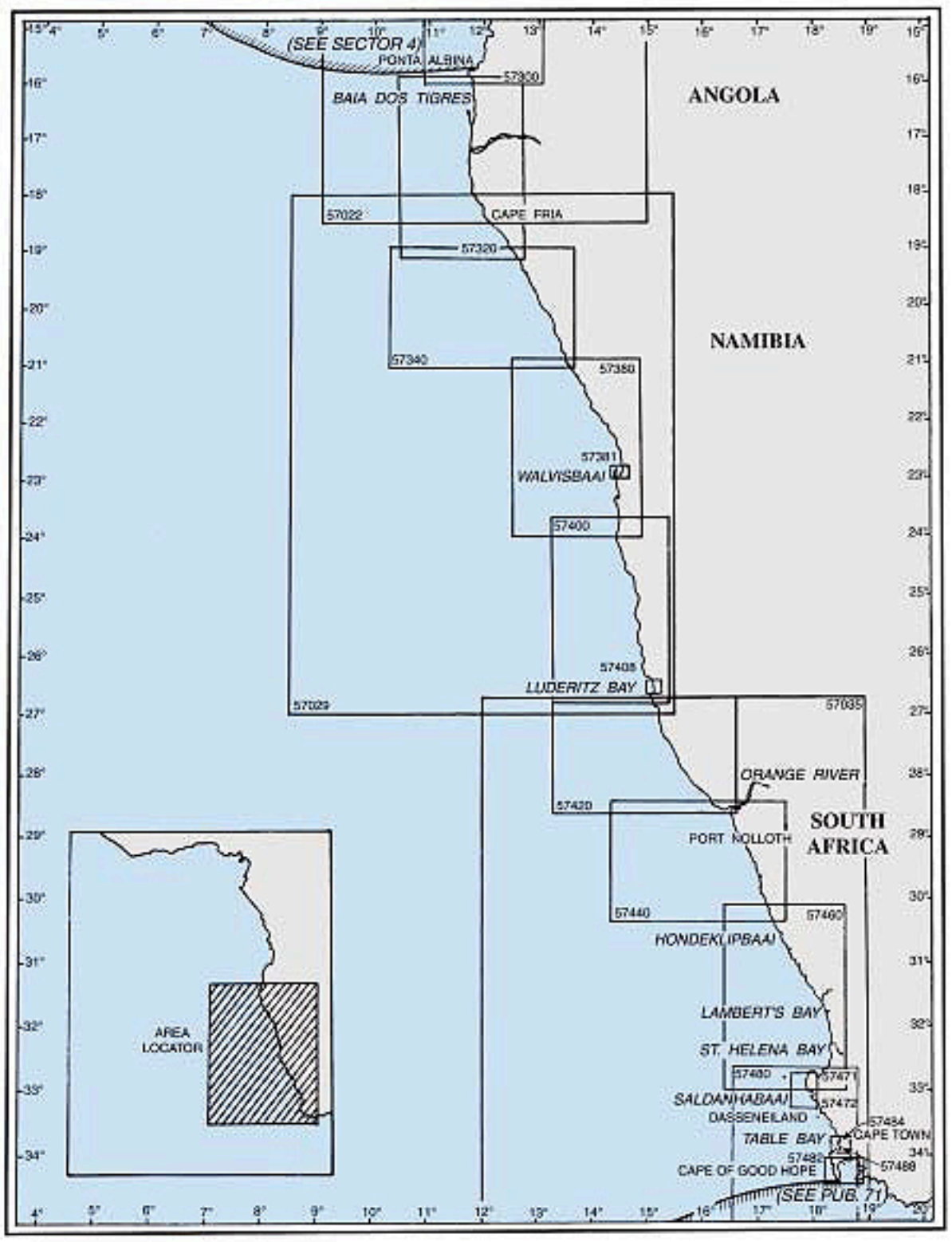
Select "See Sector" to be Hotlinked to that Sector



Additional chart coverage may be found in CATP2, Catalog of Nautical Charts.

SECTOR **5** — CHART INFORMATION

Table of Contents

Table of Contents

SECTOR 5

PONTA ALBINA TO THE CAPE OF GOOD HOPE

Plan.—This sector describes the SW coast of Africa from Ponta Albina to the Cape of Good Hope, and includes the port of Cape Town. The descriptive sequence is from N to S.

General Remarks

5.1 The coast from **Cabo Negro** (15˚40'S., 11˚56'E.), previously described in paragraph 4.78, to beyond **Ichabo Island** (26˚17'S., 14˚56'E.), N of Luderitz Bay, is a desert region of arid sands. The sandy coastal belt slowly rises to a high plateau about 60 to 100 miles from the coast.

The country S of the **Orange River** (28˚38'S., 16˚28'E.) consists of a series of three terraces, divided by mountain ranges varying in elevations from 1,200 to 2,438m, and rises gradually in a series of open sterile plains from the river as far as 32˚00'S. It gradually declines from N to S. The passages from one plateau to another are through narrow and difficult gorges.

Caution.—The seamounts lying W of the SW coast of Africa are described in Sector 6.

Baia dos Tigres

5.2 **Baia dos Tigre** (16˚35'S., 11˚46'E.), the most spacious bay in Angola, is entered about 38 miles S of Ponta Albina. The bay is bounded on its W side by Peninsula dos Tigres, a low, sandy spit, with **Ponta da Marca** (16˚31'S., 11˚43'E.) at its N extremity. The land on the E side of the bay consists of a succession of high sandhills which rise abruptly from the coastline and extend far inland in broken and irregular ridges, with no trace of vegetation. The bay, about 18 miles long in a N-S direction, is about 6 miles wide at its entrance, narrowing to a width of about 2 miles at its head. The S end of the bay is called Saco dos Tigres. In 1963, the sea broke through the peninsula at Saco dos Tigres, separating it from the mainland and transforming it into an island.

The bay provides good shelter from the prevailing winds (W and SW), in spite of the low height of the peninsula, as the depths and nature of the bottom allow ships to anchor close to the peninsula. The bay is frequented principally by fishing vessels and coasters.

Winds—Weather.—The prevailing wind is from the SW, with less intensity from June to September. Strong W winds, known as "garroas," sometimes occur, but are usually of short duration. Strong winds from the E, known as "lestadas," sometimes occur from May to July. Small swells and seas form with fresh winds, due to the large size of the bay and the low altitude of the peninsula. Rain is practically nil throughout the year. Fog is frequent from May to July, occurring with greater frequency at dawn and in the morning, and sometimes persisting all day.

Depths—Limitations.—Depths of over 50m lie about 0.5 mile from Ponta da Marca, then extend N from the meridian of the light. Depths of over 20m lie about 0.2 mile off the major part of the E side of the peninsula, gradually shoaling toward the mainland, where depths of over 10m parallel the coast at a distance of about 1 mile. Enseada das Pedras, close N of Sao Martinho dos Tigres, is shoal, forming Baixo da Capalanca, with depths of less than 3m, extending about 0.7 mile from the coast N of the town.

Aspect.—Ponta da Marca Light, equipped with a radar reflector, is shown from the NE extremity of Peninsula dos Tigres. Another radar reflector is situated about 0.5 mile SW of the light. The town of Sao Martinho dos Tigres lies on the E side of the peninsula, about 5 miles S of Ponta da Marca. Leao Light is shown close E of the town.

There is a small airport and a conspicuous church in the town, and fish warehouses can be seen N of the town. Fish warehouses can also be seen near Ponta do Castigo, about 1.5 miles N of the town.

Pilotage.—Pilots are not available. The port administration comes under the port captain of the Port of Namibe.

Anchorage.—Anchorage may be obtained in convenient depths, good holding ground of mud, sand, and ground shells, in any part of Baia dos Tigres.

Anchorage and fishing are prohibited in the charted area, the N limit of which is delimited by a line drawn in a 120˚ direction from a marker in 16˚44'S, 11˚44'E, extending to the opposite shore.

When seeking a sheltered anchorage, the direction and strength of the wind are factors to be considered. Therefore, anchorage should be taken on the W side of the bay with W winds, and on the E side of the bay with E winds.

Anchorage is recommended in the following positions:

1. In Enseada das Barracas, in about 29m, about 0.3 mile offshore, with Ponta da Marca Light bearing 320˚, distant about 0.9 mile.
2. In Fundeadouro do Leao, off Sao Martinho dos Tigres, in about 20m, with Leao Light bearing 270˚, distant about 0.4 mile. This is the anchorage most commonly used.
3. In Enseada do Pau, about 4 miles farther S, in 19m, about 0.3 mile offshore, with Casa do Pau, at the S end of the small bay, bearing 195˚, distant about 0.5 mile.
4. In Enseada dos Morrinhos, about 7.5 miles S of Sao Martinho dos Tigres, in 17m, about 0.4 mile offshore, with the beacon, at the NW end of the prohibited area, bearing 210˚, distant about 0.7 mile.

Directions.—Peninsula dos Tigres is difficult to identify from offshore. By day, the light at the N end of the peninsula, the water tank at Sao Martinho dos Tigres, and some chimneys of the fishing installations are only visible at a distance of about 6 miles. Great caution is necessary when approaching the coast in the vicinity of the bay, due to the frequent mist, making it difficult to judge distances. The first things then seen are the breakers off the coast. Vessels approaching from S should give the peninsula a berth of at least 5 miles to keep in depths of over 20m, then gradually diminishing to a berth of 1 mile off the NW and N sides of the peninsula. In approaching

Fundeadouro do Leao, Leao Light should be kept bearing greater than 225˚, in order to avoid Baixo do Capalanca.

Caution.—A local magnetic anomaly has been reported to exist on the E side of Baia dos Tigres.

Baia dos Tigres to Rocky Point

5.3 The coast between the S end of Baia dos Tigres and the mouth of the Rio Cunene, about 25 miles S, consists entirely of sand crowned with dark tinted dunes, which are visible from seaward at a distance of 15 or 16 miles. There are no known off-lying dangers along this coast.

The **Rio Cunene** (17˚15'S., 11˚45'E.), known as the Kunene River in Namibia, only reaches the sea during the rainy season. During the dry season, its mouth is barred by a bank of sand on which the sea breaks furiously, especially in its S part. A marker lies on the S bank of the river mouth. Foz do Cunene, a village, lies on the N bank of the Rio Cunene, about 2 miles within its mouth. An airstrip is situated 1.5 miles N of the village. A conspicuous water tower stands 4.5 miles NNE of the river entrance.

The coast between the Rio Cunene and **Walvisbaai** (Walvis Bay) (22˚55'S., 14˚30'E.) is known as the Skeleton Coast, having been the scene of innumerable wrecks, not only from the imperfect nature of the surveys, but because onshore sets by the current are frequently experienced. A further cause is the prevalence of fog, especially during the winter. Vessels are therefore advised not to approach within 10 miles of the coast, and in fog or thick weather to keep outside depths of 200m as far as **Cape Cross** (21˚46'S., 13˚57'E.), thereafter, if making for **Walvisbaai** (22˚55'S., 14˚30'E.), outside of depths of 50m until Pelican Point Light is observed. If by-passing Walvisbaai, ships should stay well to seaward.

Caution.—The coast between the Rio Cunene and Cape Cross may lie up to 2 miles farther SSW than charted.

The coast between the Rio Cunene and Cape Fria, 75 miles SSE, is backed by high shifting sand dunes in its N part, and by high land for about 18 miles in its S part. The Hartmann Mountains, attaining elevations of up to 1,106m, lie about 30 to 40 miles inland, and form a prominent landmark in clear weather. A depth of 5.3m lies about 6 miles SSW of the mouth of the Rio Cunene and about 1.5 miles offshore; breakers have been reported seaward of this shoal. Bosluis Bay is an indentation lying 8 miles S of the mouth of the Rio Cunene. For a distance of 26 miles S of Bosluis Bay, foul ground consisting of rocky shoals, some of which have depths of less than 4.5m, exists up to 1.2 miles offshore. A rock, 3m high, the existence and position of which is doubtful, lies about 20 miles S of the mouth of the Rio Cunene.

A shoal, lying about 15.5 miles farther S and about 2 miles offshore, has a charted depth of 9.1m, and is marked by breakers, but probably has lesser depths.

5.4 **Cape Fria** (18˚26'S., 12˚01'E.) is low, sandy, and fringed by rocks. There are some conspicuous black hills inland of it. Depths NW of the cape are probably less than charted as, during a moderate SSW gale with a high sea, breakers were observed about 2 miles WNW of the cape. Breakers were reported (1962) about 7 miles WSW of Cape Fria.

False Cape Fria is a slight projection about 3 miles SSE of Cape Fria and is radar prominent.

Anchorage may be obtained, in fair weather, in 12 to 13m, sand and mud, midway between Cape Fria and False Cape Fria.

The coast between False Cape Fria and Rocky Point, 41 miles SE, presents an unbroken line of surf. An extensive bank of shallow water extends from a point 5 miles SSE of False Cape Fria for a further 12 miles in the same direction.

The shoals are about 1 mile wide and have least depths of 6m on the inner side and 10m on the outer side. They lie as much as 3.2 miles offshore. Breakers occasionally occur along the whole length of this bank.

5.5 **Rocky Point** (19˚01'S., 12˚29'E.) is a conspicuous rocky spit extending about 0.3 mile seaward. A large rounded boulder, whitened by guano, lies at the end of the spit. There is a patch of foul ground 4 miles N of Rocky Point, which is reported to extend 1 mile offshore.

Temporary anchorage can be taken, in 14m, about 1 mile NW of Rocky Point, by vessels with local knowledge. There is no landing place.

Caution.—Oil and gas exploration has been reported (1993) in the area between Rocky Point and **Dune Point** (20˚03'S., 13˚03'E.) for a distance of up to 80 miles offshore. Vessels are advised to exercise caution in this area.

Rocky Point to Cape Cross

5.6 The coast from Rocky Point to Cape Cross, 185 miles SSE, is flat, rocky, and backed by sand hills extending as far as the eye can see. These hills continue for mile after mile, and are varied occasionally by signs of vegetation.

The mouth of the **Hoarusib River** (19˚05'S., 12˚34'E.), 6 miles SE of Rocky Point, is reported to be closed during the dry season. The Sentinaal, a sandstone cliff, 155m high, located 2 miles NNE of the mouth of the Hoarusib River, is a conspicuous mark. Black Sand Hill (Black Sand Castle), 4 miles SE of the river mouth, and Little Castle, 2 miles further SSE, are the last black sand dunes on the coast.

A shoal, which only breaks occasionally and has a depth of 7.6m, was reported (1979) to lie about 7 miles SSW of Black Sand Hill and 2.2 miles offshore.

Mowe Point (19˚23'S., 12˚43'E.), 16 miles SSE of Black Sand Hill, lies at the S end of a slight indentation. A light is shown from the point. A racon and a radiobeacon are situated at the tower on the point. Heavy breakers were observed (1971) about 5 mile NW of Mowe Point, and about 2.5 miles offshore.

The mouth of the Hoarusib River, is generally inconspicuous, but the gap in the sand hills through which it runs can be seen on bearings between 060˚ and 100˚. Breakers have been reported 3 miles SW of the mouth of the river. A fertile valley exists in the vicinity of the gap, showing up as a patch of green.

5.7 **Sand Table Hill** (19˚44'S., 12˚55'E.) is a low, tabular sand dune located 24 miles SSE of Mowe Point and 0.5 mile

inland. There is a sharp sand cone located 7 miles NNW of it and a striped sand hummock is located about 2 miles SSE of it. Sand Table Hill is most prominent when viewed from the NW, but it cannot easily be identified from more than 5 miles offshore.

Terrace Bay Light (20˚03'S., 13˚04'E.) is shown about 20 miles SSE of Sand Table Hill; a radiobeacon and racon are situated at the light. A visually and radar conspicuous mine dump lies 0.5 mile inland, about 3.5 miles NNW of the light. Dune Point, a slight headland, lies about 2.5 miles NNE of the light.

Caution.—Offshore oil and gas exploration has been reported (1993) in position 20˚00'S, 11˚40'E, about 80 miles W of Dune Point.

A dangerous reef, having a depth of less than 2m, lies close SSE of Terrace Bay Light. This reef, known as Swallow Rocks, is about 0.5 mile long in a NW-SE direction and lies 0.8 mile offshore. Shoal water within the 10m curve extends for 1 mile in the same direction either side of the reef; soundings of 8.4m are found up to 1 mile offshore. The sea usually breaks heavily over the whole area. Ships navigating in the vicinity are advised to keep well to seaward as soundings outside the 10m curve give little indication of danger.

5.8 The coast between Swallow Rocks and Palgrave Point is radar conspicuous. The Uniab River, about 9 miles SE of Swallow Rocks, can be recognized by the moderately high cliffs on either side of its mouth.

Palgrave Point (20˚28'S., 13˚17'E.), about 15 miles SSE of the Uniab River, is a slight projection, with a line of breakers extending about 0.7 mile NW of it. The point is difficult to identify visually. Anchorage can be taken by vessels with local knowledge, in 18m, sand and mud, immediately N of Palgrave Point, with the outer breaker bearing 178˚. This anchorage is protected from the rollers to a certain extent, and with a S wind is considered safe, but a vessel should be ready to put to sea in a SW gale. In 1980, conspicuous stranded wrecks lay close offshore, 8 miles SSE and 2 miles N of Palgrave Point.

Caution.—A dangerous shoal, with a least depth of 8m, lies 3 miles S of Palgrave Point and about 1 mile offshore. The sea usually, but not always, breaks heavily over this shoal.

5.9 Great Table Mountain, rocky and prominent, lies about 26 miles NE of Palgrave Point. Sugar Loaf Hill lies about 14 miles E of the same point.

Toscanini Light is shown from the coast about 24 miles SSE of Palgrave Point.; a radiobeacon and racon are situated at the light. The light marks the location of an abandoned mining settlement.

The mouth of the Huab River, about 4 miles SSE, is usually dry, and the foreshore in the vicinity is marked by dunes which are sickle-shaped and convex to the prevailing S winds.

Hogden Hafen (Ambrose Bay) is a small indentation about 10 miles SSE of the the Huab River. Ogden Rocks extend about 1.5 miles W of the point marking the S side of the bay. They are marked by breakers and should be given a wide berth.

A dangerous wreck lies 15 miles W of Hogden Hafen.

Anchorage, unsheltered and poor, may be taken by vessels with local knowledge, in a depth of 6.5m, about 0.5 mile offshore, with a prominent cone-shaped hillock bearing 056˚.

Durissa Bay, 14 miles SE of Hogden Hafen, lies W of the saltpans lying 6 miles S of the the Ugab River. The bay provides no safe anchorage or landing. Heavy surf is experienced along this section of the coast.

5.10 **Cape Cross** (21˚46'S., 13˚57'E.), 47 miles SSE of Ogden Rocks, is a barren spit extending 3 miles SW from the general direction of the coast, with low black cliffs at its seaward end, off which a reef extends about 100m. A light is shown from the cape; a radiobeacon and racon are situated at the light.

Inland from Cape Cross, flat, sandy, and rocky plains continue for several miles, rising to barren hills and mountains. A conspicuous peak, 714m high, about 21 miles NE of the cape, is the highest and most conspicuous of the mountain range that runs parallel with the coast. The peak has a nearby perpendicular fall on its S side with abrupt faces E and W. Brandberg, about 30 miles farther NE, rises to an elevation of 2,621m about 45 miles from the coast.

Shoal water, with a depth of 9m, is reported to lie 8 miles N of Cape Cross, with a depth of 18m, lies 2.5 miles offshore.

A shoal, with a depth of 15m, lies 4.5 miles SW of the cape. Cape Cross Bay, N of Cape Cross, has a village on its shore, in which there is a sealing factory. A building with two chimneys lies about 1.5 miles NE of Cape Cross light.

Anchorage can be taken, over a sandy bottom, about 1 mile offshore in Cape Cross Bay. Landing is usually rather difficult, and is sometimes impossible in adverse weather.

Cape Cross to Walvisbaai

5.11 The coast between Cape Cross and Swakopmund, 63 miles SSE, is generally clear, with depths of less than 20m extending up to 3 miles offshore.

Due to the low nature of the coast, the irregularity of the soundings, and the possible existence of uncharted rocks or shoals within 6 miles of the coast, the greatest caution must be exercised when approaching the coast in misty or foggy weather, or at night.

A beacon stands on Lunenberg (Lagunenberg), a coastal range of hills about 8 miles ESE of Cape Cross, at an elevation of 185m. The hill on which this beacon stands is reported to be radar conspicuous.

Farilhao Point (22˚10'S., 14˚17'E.), low and sandy, projects 1 mile seaward, and lies 30 miles SE of Cape Cross. A water tower, 2.5 miles N of the point, is radar conspicuous. Great Spitzkop, 1,758m high, and Little Spitzkop, rise 54 and 47 miles, respectively, ENE of Farilhao Point, and can be identified on clear days. Woltzka'sbaken, a village of small scattered houses, lies 17 miles SSE of Farilhao Point.

5.12 **Swakopmund Road** (22˚41'S., 14˚30'E.) is an open roadstead fronting the town of Swakopmund. The town is a holiday resort, and is no longer used as a port. The Swakop River, discharging close S of the town, is dry except for 1 or 2

months during the summer. The entrance of the river, blocked by a sand bar, is marked by thick, green foliage, and has rocks on its S side, while the buildings of the town are on the N bank of the river bed.

Aspect.—A light is shown at Swakopmund. Two radio masts, the taller 70m high and marked by obstruction lights, stand near the light. A radio mast, painted in red and white bands and marked by fixed red obstruction lights, lies about 6 miles N of the same light. A beacon stands on the S side of the entrance to the Swakop River. It was reported (1993) that a jetty had been renovated as a historic monument and is used only for sightseeing.

Anchorage.—Anchorage may be taken in 12m, sand and mud, with Swakopmund Light bearing 075˚, distant about 0.7 mile, but the anchorage is not recommended in S winds, and vessels are advised to keep in depths of over 15m.

Caution.—Swakop Reef, with depths of less than 9m, extends about 0.7 mile from the coast, S of the metal jetty extending from Swakopmund and is generally marked by breakers. A pinnacle rock, with a depth of 7.9m, lies off Swakop Reef, 1 mile S of the light.

Caution Reef (22˚45'S., 14˚31'E.) extends about 0.3 mile offshore, 4.5 miles S of Swakopmund.

Courtesy of Simon Baillie-Cooper

Swakopmund Light

Walvisbaai (22˚57'S., 14˚30'E.)

World Port Index No. 46640

5.13 Walvisbaai (Walvis Bay), 12 miles S of Swakopmund, is entered between Pelican Point (22˚53'S., 14˚27'E.), the N extremity of Walvis Peninsula, and Bird Rock, 5 miles E. The port is the center of a large fishing industry, and the exports are fishmeal and fish products, copper, lead, vanadium ores, and guano.

Sovereignty of Walvis Bay was transferred to the Namibian government from South Africa in 1994.

Hospital facilities are available at Walvis Bay. The airport is situated about 9 miles from the center of town. Rail service to the interior is conducted by the Namibian government and serves Windhoek, the capital of Namibia, as well as other towns, and links with the railroad of the Republic of South Africa.

Walvis Peninsula, consisting entirely of sand, forms the W side of Walvisbaai. It has a general height of 0.6 to 1.2m, with a few scattered dunes which are constantly changing in shape, height, and position by the strong SW winds. During exceptionally high spring tides, extensive areas on the E side of the peninsula are awash.

The head of the bay consists of a shallow lagoon and a mud flat, which is also awash, at exceptionally high tides. Bird Rock, a low flat islet, resembles a pier from seaward; a line of pylons extends between the islet and the shore. A wooden platform stands on the islet from which guano is collected.

A dredged channel leads to the harbor facilities at the head of the harbor.

Winds—Weather.—The swell off the coast in the vicinity of Walvisbaai is normally moderate and SW, becoming heavy from that direction after the passage of a deep depression at the Cape of Good Hope. A NW swell is rare and seldom enough not to interfere with fueling or watering vessels at anchor. With the strong E winds of winter, there may be considerable sea running out in the bay; the strong afternoon sea breeze may also cause a lively sea, especially after several consecutive days in summer.

Sea fogs are frequent off this coast at all seasons, but are more so, near the shore, in autumn and winter (April to September). They may appear at any time of the day, with a SW wind, even of force 5, and in winter with a NW wind. The fog may persist over the sea for several days. Normally, fog covers only the bay and the buoyed approach channel to the wharf during the night and early morning, receding seaward before noon, so that it is possible to enter the port on most afternoons, even in foggy spells. An exception to this is the fog, brought by NW winds, which may approach and cover the bay at any time of the day, remaining until the following morning. During winter, land fogs frequently form after a clear dawn and drift over the bay, but these are usually short in duration and usually disperse by noon. However, the incidence of fog in the harbor area and buoyed channel has decreased appreciably in recent years.

Tides—Currents.—The tidal rise at Walvisbaai is 1.6m at springs and l.2m at neaps. During periods of strong SSW winds, a current runs in the opposite direction alongside the main wharf and has been felt strongly within a distance of

300m of the wharf. At times, this current is so strong that vessels berthing or unberthing require tugs to counteract it. Observations have shown that the stronger the wind from this direction, the stronger will be the current experienced. There is no perceptible current with winds from any other direction, or during periods of calm.

During N winds, a surge, seldom more than 0.6m in height, is sometimes experienced along the main wharf. Berth l to Berth 3 are generally tolerable under these conditions, whereas Berth 4 and Berth 8 are by far the worst. The tanker berth is also subject to surge.

On the flood, a tidal current of 0.5 to 1 knot sets SW across the dredged approach channel, and past the tanker berth and Hofmeyer Wharf. The ebb current sets NE out of the lagoon, and when this is flooded, the current may attain a rate of 4 knots at springs.

Depths—Limitations.—The dredged channel leading to the main wharf is maintained at a depth of 10m and a width of 134m. Ships in the dredged channel must have an underkeel clearance of 1.2m.

Hofmeyer Wharf fronts the main part of town. With its extension (known as New Wharf), it is 1,400m long. Berth 1, Berth 2, and Berth 3 have a total length of 504m and a depth of 10m alongside. Vessels with a maximum length of 224m and a maximum draft of 10.4m can be accommodated.

New Wharf (Berths 4-8) has a length of 926m and depths of 10.6m alongside. At Berth 4 through Berth 8, a draft of 10m is acceptable, but ships must have an underkeel clearance of 0.6m at all times while alongside. A mechanized ore-loading plant is situated at Berth 3. Ro-ro vessels use Berth 4 and Berth 6 while container vessels use Berth 7 and Berth 8.

A depth of 10.6m extends for 30m outwards from New Quay. The remainder of the basin, which extends for 335m in a NW direction, is dredged to 10m.

A dolphin-type concrete tanker berth, 235m long and connected to the shore by a catwalk, lies on the E side of the inner end of the dredged entrance channel. A light is exhibited at each end of the tanker berth. Tankers 128m to 192m in length, with a maximum draft of 9.9m and not exceeding 25,000 tons displacement, can berth at the tanker berth.

A sea wall, extending about 1.5 miles NE of the tanker berth, has fish factories, with their own jetties, on it. A channel, dredged to 7m for a width of 100m, leads to the basin N of the sea wall. The basin is dredged to depths of between 6 and 7m.

A shiplift, at the SW end of the fishing harbor wharf, can accept vessels of 2,000 tons displacement, 79m in length, and 6m draft.

Aspect.—The coast between the Swakop River and Walvisbaai consists of shifting sand dunes, 90 to 115m high, behind the coastal sand dunes, which are 3 to 25m high and covered with sparse vegetation.

Spit Buoy is moored l.2 miles N of Pelican Point. Fairway Lighted Buoy is moored 3.2 miles ESE of Pelican Point, 0.6 mile N of the entrance to the main dredged channel.

Pelican Point Light is shown from a black round tower, 34m high with white bands, about 1 mile SSW of Pelican Point; a racon and radiobeacon are situated at the light. Radar reflectors around the tower provide good radar contact in the form of a star. A trellis-work beacon, 13m high, is situated about 0.5 mile SSW of the light.

The main channel is marked by lighted and unlighted buoys, however, the odd-numbered buoys are painted white. All buoys soon assume a white appearance due to being covered with guano by the teeming bird life in the area.

Lights, in range 183˚, lead through the main channel. The front light is shown from a warehouse on Hofmeyer Wharf. The rear light is shown from a tower on a railway building about 0.3 mile S.

Lights, in range 246˚, are situated close SW of the dredged basin. The sheds and cranes on the main wharf are prominent. The Fisheries Research Station, about 0.5 mile NE of the main wharf, is conspicuous, and is brilliantly lighted at night.

The Roman Catholic Church tower, 37m high, and surmounted by an illuminated cross, 5m in height, is also conspicuous about 0.7 mile farther S. Two radio masts; the taller, with an elevation of 70m and marked by red obstruction lights, stands about 0.2 mile NE of the Roman Catholic Church. A water tower is conspicuous about 0.7 mile SE of the same church.

Pilotage.—Pilotage is compulsory. Pilots board in the area 1 mile NW of Fairway Lighted Buoy and will conduct vessels through the dredged channel between the hours of 0600 and 2000. Vessels departing must leave the wharf not later than 2145 hours. Vessels arriving during the night should anchor NW of Fairway Lighted Buoy.

Vessels wishing to proceed up the dredged channel should, between the hours of 0600 and 2200, contact Walvis Bay Harbor Control on VHF, giving at least 1 hour notice. In addition, vessels should contact Harbor Control on VHF channel 16, giving their ETA, when 12 miles N or S of Pelican Point Light, depending on their direction of approach. Port traffic is directed by VHF via the assistant port captain between 0600 and 2000 hours. Radio reporting points have been established 11.5 miles NNW and 12.5 miles SSW of Pelican Point Light. There is a port radio station at Walvisbaai.

Anchorage.—Good anchorage, in mud, can be taken anywhere in the bay according to draft, remaining clear of the spoil grounds. Anchoring is prohibited within 0.6 mile of Fairway Lighted Buoy.

Caution.—When a ship is approaching from the S, it should be noted that the cranes on Hofmeyer Wharf give good radar returns which usually appear first on the screen. These should not be confused with the light pattern.

Great caution must be exercised when approaching Walvisbaai in thick or foggy weather, or at night, due to the low nature of the coast. Pelican Point is reported to be extending NE and vessels should not pass between the point and Spit Buoy. Depths in the bay outside the dredged areas are reported to be up to 2.5m less than charted. It has been reported (1997) that Pelican Point has extended up to 500m to the N and to lesser amounts to the E and W.

On June 1, 1900, an islet of mud and clay was formed by volcanic action, off the NE extremity of Pelican Point, close off the shore, where depths of 14.6m previously existed. Steam was observed rising from the N side of the islet, and a very strong odor of sulphuretted hydrogen prevailed. On June 7, the entire island disappeared and soundings indicated that the original depth of 14.6m was restored. In January, 1949, numerous bubbles were observed coming to the surface in Walvisbaai, followed by clouds of mud. These disintegrated,

and a smell of sulphuretted hydrogen was noted. On March 6, 1951, three small islands appeared above the surface of the sea W of Pelican Point. The first island appeared shortly before sunset, and arose from a bubbling sea. It remained for about 1 hour and then subsided beneath the surface. The other two islands were farther out to seaward and appeared about the same time. They remained until daylight faded, and by morning had disappeared.

The concentration of sulphuretted hydrogen in the vicinity of Pelican Point is at times such that pale-colored lead paints and brasswork on ships are affected.

Directions.—The entrance to Walvisbaai is difficult to make out from seaward, even when approaching from S.

Approaching from N or NW, it is recommended to sight Swakopmund first, the town of which is conspicuous, especially when the sun is shining on the roofs of its buildings, making them visible in misty weather long before the land is sighted.

Approaching from S, the buildings of the town of Walvisbaai will first be seen over Walvis Peninsula and will give a good radar echo, and if the weather is clear, no difficulty will be experienced in entering the bay. After passing Spit Buoy, course should not be altered for the main dredged channel until the Roman Catholic Church bears 160˚. At night, lights, in range 183˚, lead through the main channel. To avoid delay in entering due to mist, it is advantageous, when possible, for vessels to arrange their arrival time off the entrance to the bay to be not earlier than noon.

As the fog is at its maximum in the early morning and forenoon, and as the early part of the night is for the most part clear, vessels can nearly always enter the bay during the night, and can proceed alongside the wharf after daybreak, even in thick weather.

Walvisbaai to Luderitz Bay

5.14 The coast between Walvisbaai and the mouth of the Orange River, 375 miles SSE, presents a most uninviting appearance. It consists of a long range of sandhills, except between Spencer Bay and Hottentot Bay, where there is a range of barren, desolate hills, 150 to 180m high, even more forbidding in aspect than the rest of the coast. Most of this coast is designated as a restricted area, being in the diamond working area.

About 3 miles SSW of Pelican Point, a coastal bank, with depths of 11m, extends W from Walvis Peninsula for about 0.8 mile. In 1953, less water than charted was reported to exist in this area.

A wreck is charted in a depth of 34m at 23˚00'S, 14˚22'E. A dangerous wreck, 11 miles offshore, is charted 17.2 miles SE of the light at Pelican Point and its position is approximate.

Sandwich Harbor (23˚22'S., 14˚29'E.), 27 miles S of Pelican Point, is no longer a harbor, but rather a lagoon intermittently closed to the sea. It is a proclaimed bird sanctuary. Discolored water, very light in color and extending 2 to 3 miles seaward, has been observed in the vicinity of Sandwich Harbor and for a few miles S of it. The line of demarcation between it and the blue water seaward is clear and distinct. Depths 0.2 mile inside this line were found to be about 25m, sand.

The coast between Sandwich Harbor and Conception Bay, 31 miles S, is backed by shifting sand dunes, 100 to 150m high. Depths of less than 10m extend about 1 mile offshore. Conception Bay is a slight indentation affording no shelter. It is visited only by small vessels with provisions for a diamond mining settlement situated 9 miles inland.

The coast in this vicinity appears to be extending seaward. A stranded wreck (24˚00'S., 14˚27'E.), lying S of Conception Bay and some distance inland, is a conspicuous radar target. For many years, the wreck had the appearance of a ship steaming through the desert.

North Rocks lie about 30 miles SSE of the stranded wreck, off a sandy point. Black Kop, a 25m high hill, rises 5 miles N of North Rocks. Meob Bay, a small indentation, lies close S of North Rocks. A small settlement and a meteorological station are situated close S of the bay.

Black Reef lies 2.5 miles SSW of North Rocks. A 30m hill and a 25m hill stand close ESE and 2 miles ENE, respectively, of Black Reef. An 18m depth and a 9.8m depth, lie about 3 miles W and 3.5 miles SSW, respectively, of Black Reef.

5.15 Hollandsbird Island (Hollams Bird Island) (24˚38'S., 14˚32'E.), a 12m high rock, lies 6 miles offshore and lies 7 miles SSW of Black Reef.

Depths of less than 20m extend about 4 miles N and 6 miles SSW, respectively, of the island. Breakers were reported (1939) about 6 miles SSW of the island. A pair of heavylift shearlegs, on the N side of the island, is conspicuous from seaward. The reef is frequented by whales during July and August, and the place is the resort of seal and cormorants.

Anchorage can be obtained, in 23m, at a distance of 0.5 to 1 mile N of the island.

A shoal, with a depth of 25.6m, the position of which is approximate, lies 5 miles W of Hollandsbird Island.

5.16 An indentation, with a low sandy beach marked by patches of black rocks, is formed between the point S of Black Reef and some conspicuous white sand patches on the coast, about 25 miles farther SSE. This part of the coast is lower than the coast S of it, and is difficult to distinguish due to the heavy surf and spray which envelop it. The above-mentioned white sand patches are very conspicuous in the afternoon when the sun shines on them. The country in the vicinity is sand of a generally yellowish appearance, but the sand patches are quite white, coming to a point at the base of the hills, and spreading above in a fan shape. A flat-topped black rock (24˚57'S., 14˚49'E.) is conspicuous close off the coast, about 2 miles S of the white sand patches.

Sylvia Hill (25˚09'S., 14˚51'E.), 250m high, rises 12 miles farther S and is sharp and double-peaked. It is higher than the surrounding country and conspicuous from SW.

Easter Point (25˚18'S., 14˚48'E.) lies about 8.5 miles SSW of Sylvia Hill. East Hill, a rocky summit, lies about 2.5 miles ESE of the point. Easter Cliffs (Oyster Cliffs), 3 miles S of Easter Point, are high, rugged sandcliffs extending to black cliffs about 3 miles farther S. Breakers extend some distance off the coast N of these cliffs, and vessels should not approach

this coast within 2.5 miles. The Uri Hauchab Mountains rise to an elevation of 723m, about 21 miles ESE of Easter Point.

Knoll Point (25˚28'S., 14˚50'E.), rocky, but inconspicuous, lies 11 miles S of Easter Point. The coast S of Knoll Point forms an open bay about 8 miles wide. High cliffs, with a rugged coastal range of hills behind them, lie at the S end of the bay, and extend about 5 miles S to **North Point** (25˚41'S., 14˚51'E.). North Head rises to an elevation of 262m, about 0.7 mile NE of North Point.

5.17 **Spencer Bay** (25˚43'S., 14˚50'E.) is entered between North Point and Dolphin Head, about 3 miles S. These points are the most remarkable features on this part of the coast. During bad weather, the sea breaks heavily on the beach in the bay for a considerable distance, forming several lagoons in the hollows behind it. Whales visit the bay in July and August.

Dolphin Head, the N extremity of South Head (Sudhuk), rises steeply from the sea to an elevation of 185m. It has the appearance of an island when seen from a few miles N. A stranded wreck lies in a sandy bay close E of Dolphin Head.

Mecury Island (Mercury Island), a bleak, guano-covered island, 38m high, lies on the W side of Spencer Bay, about 0.4 mile N of Dolphin Head. The settlement consists of a few wooden houses built on concrete pillars.

The rocky N part of the island is separated from the main part of the island by a chasm through which the surf surges and which is crossed by a planked bridge. Waves at times beat against the shores of the island with indescribable fury. A shoal, with a depth of 6.7m, rock, extends from the NE side of the island, about 0.2 mile E of the N end of Mecury Island.

The other sides of the island are fairly steep-to. A bank, with depths of less than 9.1m, extends 0.5 mile from the mainland E of Mecury Island, leaving a channel about 275m wide, with depths of 10.5m, between it and the shoal extending from the island. Depths of over 7.5m lie about 0.2 mile off the mainland E and S of Mecury Island.

The sea has been observed to break heavily about 0.5 mile NE of Mecury Island, but only in bad weather with a very heavy swell, although there is a charted depth of 14.6m in this position.

Anchorage.—Spencer Bay is sheltered from SSW winds by Dolphin Head, though these winds may prevail during violent gales. The bay can be entered N or S of Mecury Island. The best anchorage is in 11m, about 0.3 mile E of the N extremity of the island, care being taken to avoid the 6.7m shoal. Vessels loading guano lie at a distance of a little over 0.2 mile off the coast of the island. It is inadvisable for vessels to anchor on the S side of the bay due to the heavy W swell.

Caution.—Due to the possible existence of uncharted shoals and rocks, vessels should exercise extreme caution when navigating within 6 miles of the coast between Easter Point and Dolphin Head.

5.18 The coast for a distance of 2 miles S of Dolphin Head consists of rugged cliffs, terminating in a point which, when seen from S, is in the form of a rocky pyramid, but from W appears flat-topped.

Saddle Hill (25˚54'S., 14˚55'E.), about 11 miles SSE of Dolphin Head, is sharp-peaked and rises immediately over the coast. It can easily be seen in clear weather from Ichaboe Island, about 23 miles farther S. Saddle Hill has two peaks, North Peak and South Peak, but appears as one from N, and is the highest land in the vicinity.

The coast between Saddle Hill and the entrance to Hottentot Bay, about 14 miles S, consists of a sandy beach, rising a short distance inland to a level range of sandhills, 150 to 200m high. North Rocks lie about 8 miles SSE of Saddle Hill, and a conspicuous rock lies about 4 miles farther SSE.

Hottentot Bay lies E of **Hottentot Point** (26˚08'S., 14˚56'E.). The latter point is the W extremity of Hottentot Peninsula, which is joined to the mainland by a low, sandy neck.

The peninsula, partly rocky and cliffy, appears as a succession of sandhills of about equal height. From W, it shows up well and is visible at a distance of 10 to 12 miles. From S, it appears as two low, bare, and isolated rocks, the N of which is slightly higher. A pyramidal, framework beacon, 12m high, stands at an elevation of 34m on the higher of the two dark summits of the peninsula.

Anchorage.—There are depths of less than 5.5m within 0.5 mile of the shore in the SW part of Hottentot Bay, but secure anchorage can be obtained, in 7m, good holding ground of sand and mud, about 1.1 miles ENE of the beacon.

Caution.—The shores of Hottentot Bay are a prohibited area because of diamond deposits located there.

A shoal, with a least known depth of 7.7m, lies about 1.2 miles N of the beacon on Hottentot Peninsula. The sea breaks over the shoal with a heavy swell. There are tide rips over the shoal and between it and the peninsula.

A shoal, with a depth of 8.8m, lies about 0.5 mile N of Hottentot Point. It breaks in a heavy swell.

Mooring buoys, designated B1, B2, and B3, are situated 1.5, 2, and 2.7 miles NE, respectively, of Hottentot Point.

5.19 The coast between Hottentot Point and Danger Point, about 8 miles S, is generally rocky, with occasional sandy beaches. Breakers extend about 0.3 mile offshore in an unbroken line. Some of the points are marked by rocks and are prolonged by submerged reefs which extend a considerable distance offshore in places.

Gallovidia Reef (26˚10'S., 14˚56'E.), with several parts awash and others above water, extends about 1.5 miles S from a point 1.2 miles SSE of Hottentot Point. A rocky islet lies at the S end of the reef. The reef lies nearly in the direct track from Hottentot Bay to Douglas Bay, and care should be taken to keep in depths of not less than 30m, as the sea has been observed to break heavily in depths of 14.6m.

A shoal, with a least depth of 10m and on which the sea breaks in a heavy swell, lies 1.5 miles SSW of the rocky islet, at the S end of Gallovidia Reef.

Danger Point (26˚16'S., 14˚57'E.) is cliffy; a broken and cliffy coast extends 0.6 mile SSW to Wreck Point, and then 0.8 mile farther SSE to another cliffy projection. The sea breaks heavily all along this stretch of coast.

A shoal, with depths of less than 5.5m, extends 0.1 mile from Wreck Point; a detached shoal with a depth of 4.5m, lies 0.3 mile NW of the point. There is a depth of 6.4m, rock, 0.3 mile WSW of Wreck Point. Good radar returns have been reported from Wreck Point.

5.20 Ichaboe Island (26˚17'S., 14˚56'E.), about 0.7 mile SW of Wreck Point, is flat and mainly composed of granite. Its highest point, at its SW end, is 12m high, and marked by a pole beacon, which is difficult to distinguish from a distance. A settlement with a jetty is situated on the NE side of the island. There is a flagstaff at the settlement.

Foul ground and reefs, upon which the sea usually breaks, extend 0.3 mile N and W, and 0.1 mile S of the island. A rocky outcrop, called Little Ichaboe, lies 0.3 mile off the W side of the island.

Depths of less than 5.5m extend about 100m off the E side of the island. There is a depth of 6.4m about 0.2 mile NE of the settlement.

A channel, 275m wide, with depths of 10m, lies between the above depth and the rock WSW of Wreck Point. Ichaboe Island is the home of a colony of cormorants. The guano collecting season is in April and May when all the birds have departed.

Douglas Bay (26˚18'S., 14˚57'E.) is entered between Wreck Point and Douglas Point, 1.5 miles farther S. Rocky Point, 0.4 mile NE of Douglas Point, divides the S part of the bay into two smaller bays. The S bay is surfbound, and a good landing place is located E of Rocky Point. Breakers extend 0.3 mile N from Douglas Point, and 0.1 mile NW of Rocky Point.

An isolated shoal, with a depth of 12.8m, lies about 0.7 mile WSW of Douglas Point.

Anchorage.—Anchorage, consisting of sandy patches among rocks, can be obtained, in 10m, about 0.2 mile E of the settlement, or in about 13m, about 0.3 mile ENE of the S end of Ichaboe Island. In the first location, vessels are well-sheltered from the heavy swell which sets in, but NE of the island the rollers are dangerously heavy. Rollers come in without giving any previous warning, and it is not usual for the approaches on either side of the island to break across, leaving comparatively smooth water at the anchorage. A current usually sets N through the anchorage at a velocity of about 1 knot.

Directions.—Vessels approaching Douglas Bay between 26˚15'S and 26˚25'S should be able to make out the mountains inland, which should be steered for on a SE bearing. Vessels can pass either N or S of Ichaboe Island, giving it a berth of at least 0.4 mile. The S passage is preferable, as the N passage is narrower and the sea breaks in adverse weather for several miles N of the island.

5.21 Kegelberg (26˚25'S., 15˚06'E.), a conspicuous conical hill, 39m high, and consisting of white quartz, lies 10.5 miles SE of Douglas Point. The hill lies 0.5 mile N of the N point of Boat Bay, at the S end of a low chain of hills. Nearly all of the intervening coast is fringed by breakers.

Marshall Rocks, composed of dangerous and extensive reefs marked by heavy breakers, lie up to 3 miles S of Douglas Point, and extend up to 1.5 miles offshore. Breakers extend in a SE direction for about 2.5 miles from the SE end of Marshall Rocks, and a bank, with depths of 13 to 17m, extends in the same direction for another 2 miles. Staple Rocks lie with the highest rock, 9m high, about 1 mile E of the SE end of Marshall Rocks.

Anichab Rocks, about 3.5 miles ESE of Staple Rocks, are low and break 0.5 mile offshore.

Boat Bay Rocks, marked by breakers, extend about 1 mile W of the N entrance point (26˚25'S., 15˚05'E.) of Boat Bay.

Boat Bay lies between the above-mentioned point and a rocky headland, 67m high, nearly 2.5 miles SSE. Some huts, in ruins, lie E of the headland.

The bay is clear of dangers and anchorage can be taken, in 7 to 11m, in the S part of the bay, but vessels should proceed to sea when W or N winds threaten.

Dumfudgeon Rocks, two low islets, lie about 2.2 miles S of Boat Bay; the outer islet lies about 0.7 mile offshore. Dagger Rocks, about 2.5 miles farther SSE, extend 0.2 mile offshore. An 18m patch lies 1.5 miles W of Dagger Rocks.

Luderitz Bay to the Orange River

5.22 The coast between **Diaz Point** (26˚38'S., 15˚06'E.) and Chameis Baai, 81 miles SSE, is indented with many small bays enclosed by rocky headlands. The interior is desert country, consisting of sandy valleys with sparse scrub vegetation lying between ranges of sandstone and quartzite hills.

Guano Bay, close SW of Diaz Point, is sheltered from S and SW winds by Halifax Island, 37m high, and Halifax Reef, parts of which are above water, extending about 0.5 mile NNW of the island. Halifax Island appears as a range of black hummocks from S and has been mistaken for Diaz Point.

Anchorage can be taken, in a depth of 9m, about 0.3 mile NE of the flagstaff on the NE end of Halifax Island. Depths decrease rapidly within 0.3 mile of the shore of the bay.

Grosse Bay (26˚45'S., 15˚06'E.), 6 miles S of Halifax Island, has a sandy coastline alternating with rocks. It affords no shelter, except to small vessels in a N wind, as the bottom is foul.

Albatross Peak, a double-headed peak, 180m high and reddish in color, rises 2.5 miles E of Grosse Bay. It forms a good mark from S.

Wolf Bay, providing no protection, lies 4 miles SSE of Grosse Bay. North Long Island, low-lying and almost divided into two parts, lies 0.5 mile offshore, close S of the entrance to Wolf Bay. South Long Island, 0.5 mile farther S, lies 0.1 mile off a small point on the coast.

Zwei Point (Zwei Spitz) (26˚52'S., 15˚09'E.), 2 miles SE of South Long Island, is a prominent, table-topped hill. A submerged reef lies 0.4 mile offshore, 1.3 miles S of Zwei Point. The cliffs in this vicinity are composed of cream-colored rock, in contrast to the prevailing gray granite.

5.23 Elizabeth Point (26˚55'S., 15˚11'E.), low and rocky, lies 4.5 miles SSE of Zwei Point. A dangerous reef and heavy breakers extend some distance S of the point, and the ruins of an old mining town, situated N of the point, are conspicuous when viewed from the W.

Zweikuppen (Saddle Mount) (26˚56'S., 15˚20'E.) rises to an elevation of 358m about 8 miles E of Elizabeth Point. Dreizack Berg, 463m high, lies 6 miles SE of Zweikuppen. Two peaks, known as The Paps, behind these hills, are conspicuous in clear weather, and when in range bear 053˚.

Elizabeth Bay is 3.5 miles wide between Elizabeth Point and the reefs extending N of Possession Island. The bay is backed

by a low plain with shifting sandhills, behind which the country is hilly.

5.24 Possession Road (27˚01'S., 15˚13'E.) lies between Possession Island and the mainland. Possession Island, 5 miles S of Elizabeth Point, rises to an elevation of 20m in its S part. The coast of the island is rocky and nearly perpendicular. The island is easily identified when approached from either N or S. When seen from a short distance S, it appears as a group of islets, as it has several summits joined by low land.

There is a small settlement on the E side of the island, 0.5 mile from its N end. There is a flagstaff and small pier at the settlement. Three islets lie close off the N end of Possession Island, and North Reef, submerged and marked by breakers, extends 1 mile NNW of the island.

Kreuz Shoals consists of two groups. One group, with a least depth of 3.6m, lies 1.3 miles NE of the N end of Possession Island. The other group has a least depth of 2.7m at its S head, about 0.7 mile NE of the N end of the island, and extends 0.5 mile farther N, with the remaining depths not less than 7.3m. Possession Rock, with a depth of 0.9m, lies 0.7 mile SE of the N end of Possession Island, and 0.3 mile E of the shore.

South Reef, marked by breakers and incompletely surveyed, extends 1.5 miles S of the S end of Possession Island and should be given a berth of at least 2 miles.

Anchorage.—Good anchorage, in smooth water, can be taken by small vessels, in 8m, about 0.5 mile NNE of the flagstaff at the settlement. It is reported that the seabed in approximate position 27˚00'S, 15˚13'E is covered in kelp and does not provide good holding ground.

Directions.—The best approach to the anchorage is from S, giving the S end of Possession Island a berth of at least 2 miles, until the N extremity of the island is open E of the SE end of the island. Then the anchorage can be steered for, care being taken to pass E of Possession Rock. If approaching from N, give the islets off the N end of Possession Island a berth of at least 1 mile, and when clear of the 3.6m patch the anchorage can be approached with the flagstaff bearing 225˚. Another approach would be with the flagstaff bearing 210˚, which leads between the 2.7m and 3.6m shoals. These directions were written from scant detail and should he used with caution.

5.25 Prinzenbaai (Prince of Wales Bay) (27˚05'S., 15˚15'E.) lies 5 miles SSE of Possession Island. Foul ground extends 0.4 mile NNW of the SW entrance point of the bay, and a rock, with a depth of less than 1.8m, lies 0.5 mile NW of the same point.

Anchorage, in depths of 8 to 12m, can be obtained by small craft 0.3 mile NE of the N edge of foul ground.

Albatross Rocks (27˚07'S., 15˚14'E.), a ridge of volcanic islets and above-water rocks, lies about 0.8 mile off the coast. The S and largest islet is prominent against the lighter-colored mainland when viewed from seaward. Foul ground extends about 0.3 mile N and 1.5 miles S of the rocks. The foul ground extending S from the rocks is marked by breakers.

Albatross Channel, lying between Albatross Rocks and the mainland, appears to be clear, but has a depth of 6.7m in its N entrance.

Jammerbaai, 4 miles S of Prinzenbaai, has a conspicuous mining building, in ruins, in its S part. Pomona Island, 15m high, lies 1 mile farther SSW. A submerged rock lies between the island and the mainland. Anchorage can be taken by small vessels, in a depth of 10m, good holding ground, off the N end of the island.

The coast from abreast of Pomona Island to Bakers Bay, 31 miles SSE, is most desolate in appearance, without the least sign of vegetation. It is bordered about 0.5 mile offshore by numerous islets and reefs. There are no known dangers beyond 1 mile offshore, but it is prudent to remain at least 2 miles off the coast.

Tafelberg (27˚16'S., 15˚23'E.) rises to an elevation of 214m about 8 miles SE of Pomona Island.

Black Point lies 6 miles SW of Tafelberg. A dangerous wreck lies 1.8 mile W of Black Point. Black Rock, 10m high, about 5 miles SSE of Black Point, lies close S of the N entrance point of Van Reenan Bay. The bay affords no shelter.

5.26 Bogenfels (Arch Rock) (27˚28'S., 15˚24'E.) is a large rock, 50m high, projecting from the coast, in the shape of an archway. It is one of the most remarkable features on the coast of Namibia. From W through N, it is not at all distinct, but when bearing about 010˚ it shows up well against the light-colored coast. Driemasterbaai is entered between Driemastergrat, 6 miles SSE of Bogenfels, and Driemaster Huk, 1.5 miles farther SSE. The shore of the bay is foul and breakers extend 0.2 mile offshore. The recommended anchorage is in 11m in the S part of Driemasterbaai.

False Plum Pudding is a rocky projection 3 miles SSE of Driemaster Huk. Rocks, partly visible at LW, extend 1 mile off the shore of the bay close NW of False Plum Pudding.

Plum Pudding Island, 13m high, lies 0.3 mile offshore, 2 miles SSE of False Plum Pudding.

Black Sophie Rock, 3m high, lies 0.4 mile farther SSE. Foul ground and breakers surround these islands and extend to the coast.

5.27 Bakers Bay (27˚40'S., 15˚31'E.) is entered between Black Sophie Rock and Sinclair Island, 15m high, 0.9 mile S. The latter island is almost joined SE to Lion's Head, the S entrance point of Bakers Bay. The depths in the bay decrease from 14.6 to 7.3m, sand, the latter depth being found outside the breakers, about 0.3 mile offshore.

Anchorage can be taken by small vessels. in about 12m, in the middle of the bay, with fair shelter from S winds. Sparrow Hawk Islet lies in the middle of a small bay between Lion's Head and Needle Point, about 0.5 mile S. Durnburg Bay is entered between Vohsenberg, 30m high, about 0.5 mile S of Needle Point and Kapp Durnburg, about 1.5 miles farther S. The bay appears to be full of breakers, and there are several rocks and islets in it, including Little Roast Beef Islets.

Copper Mount rises to an elevation of 50m about 1 mile E of Kapp Durnburg. Dunkle Wand Spitze, 2.5 miles SSE of Kapp Durnburg, is fringed with breakers, and a small islet lies in the bight on its N side. It has the appearance of a dark wall. A green precipice is charted 2.2 miles farther SE.

Nordfels is one of a group of rocks lying 0.2 mile offshore, 4 miles SE of Dunkle Wand Spitze. Sudfels, another group of rocks, lies close offshore, 2.5 miles farther SE.

A 5.5m patch lies 1 mile offshore, about 1.5 miles W of Sudfels; an 18m depth lies nearly 2 miles SW of Sudfels.

Chameisbaai lies between Chameis Head (27˚52'S., 15˚39'E.), 3 miles SE of Sudfels, and Panther Huk, nearly 4 miles SSE. Schlangen Mount rises to an elevation of 81m about 1 mile E of Panther Huk. Chameis Reefs, consisting of North Reef and South Reef, lie in the approach to Chameisbaai. North Reef, which breaks and has a least depth of 7.9m, lies 1.7 miles SW of Chameis Head. South Reef, which sometimes breaks, has a least depth of 14m about 2 miles SSE of North Reef. Panther Reef, which dries 0.5m and is steep-to, lies 0.7 mile N of Panther Huk. Stranded wrecks lie close N of Chameis Head and at the SE end of Chameis Bay.

5.28 The coast between **Panther Huk** (27˚56'S., 15˚40'E.) and the mouth of the Orange River, about 60 miles SE, is an almost unbroken line of sand, in contrast to the coast farther N. With few exceptions, the coastal hills are low and inconspicuous. Intense diamond mining is under way in this area, with mine dumps, mine headgear, and pump houses along the coast. A shoal, with a depth of 57m, was reported (1956) to lie 14 miles SW of Panther Huk.

Boegoeberge (27˚54'S., 15˚56'E.), 578m high, has a radio mast on its summit, about 14 miles E of Panther Huk. Nordlicher-Tafelberg, 67m high; Grosse Tafelberg, 79m high; and Tafelberg-Suid, 84m high, lie close to the coast, between 4 and 8 miles SE of Panther Huk.

Kerbe Huk (28˚14'S., 16˚00'E.), 54m high and off which there is a stranded wreck, lies 25 miles SE of Panther Huk. A tower, with an elevation of 16m, lies 5 miles SE of Kerbe Huk. A lighted buoy (waverider) is moored 8 miles offshore, 12 miles S of the same point. A conspicuous sandhill, 100m high, rises near the coast 8 miles SE of Kerbe Huk.

Schakalberg (28˚09'S., 16˚35'E.), rising to an elevation of 598m, can be seen about 28 miles inland from the vicinity of the sandhill.

5.29 **Oranjemund Oil Terminal** (28˚34'S., 16˚22'E.) lies 6 miles NW of the mouth of the Orange River, and about 3 miles WSW of the town of Oranjemund (Orange Mouth). A submerged pipeline extends 1.7 miles SW from the terminal. The seaward end of the pipeline is marked by two buoys. The town of Oranjemund is a well laid out town, with excellent amenities despite the surrounding desert. The inhabitants of the town are nearly all connected with the diamond mining industry. There is a small airfield close SE of Oranjemund.

Tides—Currents.—The prevailing current sets NW at 0.5 knot and the swell is generally from the SW.

Depths—Limitations.—The oil berth can accommodate tankers of up to 183m in length with a draft of 10.7m. Berthing is done only during daylight hours, but unberthing can be done at any time. Tankers are berthed on a S heading, riding to two anchors, and moored astern to three mooring buoys which are situated 150m N of the seaward end of the pipeline. A fourth mooring buoy, 100m S of the seaward end of the pipeline, is for a breast line from the port bow of the vessel.

Aspect.—Lights, in range bearing 043˚30', lead to the oil berth. Oil tanks stand 0.2 mile ENE of the front range light; however, the lights are only shown on demand or when a vessel is expected at the terminal. A lighted buoy lies 6.5 miles NW of the range light. A radio mast, exhibiting a fixed red obstruction light, stands in the town of Oranjemund.

Pilotage.—A berthing master will board 2 miles SW of the oil berth. The pilot boat is equipped with VHF and radiotelephone. Advance notice of arrival should be given through the ship's agents 3 days in advance and again 24 hours in advance.

Regulations.—Engines must be kept on notice while the vessel is in the oil berth.

Caution.—Vessels should remain in depths of more than 20m to avoid unlighted mooring buoys.

Caution should be exercised due to the possibility of the existence of uncharted rocks and shoals within the territorial waters.

The Orange River to Point Nolloth

5.30 The **Orange River** (28˚38'S., 16˚28'E.), one of the largest rivers in Africa, crosses nearly the whole of the S part of the continent, flowing W for about 1,000 miles. The mouth of the Orange River is closed during dry periods by a sandbank, nearly 0.7 mile long which is breached at varying points when the river is in flood. The banks on both sides of the river are fertile. Off the mouth of the Orange River, silt from the river has covered the rock bottom and formed an even gradient out to depths of 100m. Discolored water of a light green hue occurs frequently off the mouth of the Orange River for distances of up to 50 miles.

Alexander Bay (28˚40'S., 16˚31'E.) lies 3.5 miles SE of the mouth of the Orange River. Alexander Bay Peak rises to a summit of dark rock, 122m high, 1 mile E of the head of the bay, and is a good landmark.

Tripp Shoal, a rock with a depth of 5.5m, lies 1 mile WSW of the N entrance point of Alexander Bay. It usually breaks. A depth of 6.9m, which seldom breaks, lies 0.5 mile WNW of Tripp Shoal.

Anchorage off Alexander Bay is not safe, as the coast is exposed to the prevailing S wind. There is occasionally a S set off the bay, but it is easily detected by the presence of discolored water from the Orange River.

Kaap Voltas (28˚43'S., 16˚33'E.), low and rocky, lies about 3.5 miles SE of Alexander Bay. The intervening coast is low, sandy, and desolate. Peacock Bank, with a least depth of 16.9m, lies 3.5 miles WSW of Kaap Voltas. Peacock Roadstead lies in the bight, 2.5 miles wide, S of Kaap Voltas. The shores of the bay are backed by hills sparsely-covered with low scrub, and by mountains farther inland. The shore in the S part of the bight is a sloping, rocky cliff which affords a certain amount of shelter from the prevailing S wind and swell. There is a long sandy beach, N of the cliffs.

Peacock Roadstead can be easily recognized by The Twins. Boegoeberg-Noord, 131m high, and Boegoeberg-Suid, 161m high, are conspicuous about 1 and 2 miles, respectively, SE of the S entrance point of the bight, and rise abruptly from the level ground close within the S entrance point. During the survey of the coast in 1955-56, it was often found that with the S wind blowing normally, at about force 4 to 5 a few miles from the coast, inside Peacock Roadstead it would be force 6 to 7, apparently due to local conditions. It has been stated that rollers sometimes break as far out as the line joining Alexander Bay and Harrison Cove, an indentation in the SE part of the bight.

The depths in Peacock Roadstead are regular, deepening from 7.3m close under the cliffs to 26m at a convenient distance for larger vessels to anchor. The bottom is sandy mud. The best anchorage, for small vessels of up to 76m in length, is in the small indentation S of Harrison Cove.

5.31 Homewood Cove (28˚46'S., 16˚34'E.), close inside of and W of Boegoeberg-Noord, is nearly circular, with receding sides rising to heights of 18 to 24m. Small craft with local knowledge may find shelter, in 3.7m, on the S side of the cove. Collins Reef, with a depth of 5.4m, and on which the sea breaks, lies 0.8 mile SSW of the entrance to Homewood Cove.

A reef, with a depth of 8.8m in its outer part and on which breaks in a heavy swell, extends 1 mile offshore, and 2 miles SW of Boegoeberg-Suid. Another similar reef, with a depth of 6.7m near its outer end, 4 miles S of Boegoeberg-Suid, extends 1 mile SW from the white sand dunes.

Wreck Point (28˚52'S., 16˚36'E.), backed by sand dunes, lies 7 miles SSE of Homewood Cove. Soco Reefs, which break heavily, extend 1.5 miles offshore, 2 miles SE of Wreck Point.

Holgatrivier, generally dry, empties into the sea 9 miles SE of Wreck Point. Rocks extend 0.5 mile SW from the N entrance point of the river. The river valley is fairly conspicuous when viewed from the SW.

The coast between Holgatpunt and Port Nolloth, 17 miles SSE, is fringed by rocks from 0.2 to 1 mile offshore. A rock, with a least depth of 8.5m and which breaks in a heavy swell, lies 2 miles offshore, midway between Holgatpunt and Jackals Pit, a small cove, 7 miles SE.

Cliff Point (29˚07'S., 16˚49'E.) lies 1 mile S of Jackals Pit. A dangerous rock, with a least depth of 3.6m and which breaks in a heavy swell, lies 2.5 miles SW of Cliff Point, 1.8 miles offshore.

Caution.—The shore between Cliff Point and Port Nolloth, 9 miles SSE, should not be approached closely.

5.32 Port Nolloth (29˚15'S., 16˚52'E.) (World Port Index No. 46730) lies between North Point and South Point, 1.7 miles SSE. North Point, 10m high, is easily recognized by the prominent buildings of the fisheries factory near its extremity. Owen Island, 3m high and bordered by rocky ledges, lies close S of South Point. North Point and South Point are both marked by heavy breakers and fringed by reefs.

The port limits are enclosed by lines extending for a distance of 3 miles 245˚ from North Point, then for 4.2 miles on a line of bearing 155˚, then a bearing of 065˚ to Gooapunt. The latter point lies 2.5 miles SSE of South Point. The coast for 1 mile NW of Gooapunt consists of rocky ledges.

The port is shallow and suitable only for light-draft coasters. It is formed by a reef, which dries in places, and extends 0.8 mile NNW of Owen Island. The town of Port Nolloth is built on the low-lying land E of the harbor and is fairly prominent.

Winds—Weather.—The prevailing winds are from the SE.

Tides—Currents.—The tidal rise at Port Nolloth is 1.6m at MHWS, and 1.1m at MHWN. The current outside the reefs usually sets N at a velocity of 0.5 to 1 knot. Fresh and sustained N winds check the current, and will reverse the current if persisting for several days. The reversed current normally attains a velocity of no more than 0.5 knot, but a velocity of 3 knots has been reported. The current in the port attains a velocity of 0.5 knot to 3 knots, depending on the strength of the SW wind. It enters through the reefs close NW of South Reef, and after passing through the inner anchorage, runs out across The Bar and the S part of the N reef in a NW direction, losing some of its strength as it crosses them. It is reported that the strength of the current depends on the size of the swell, and that during a heavy swell, the current may run strongly N through the harbor, meeting a weaker S current from the N part of the harbor. Both currents then unite and flow seaward over The Bar.

Depths—Limitations.—A depth of 2.1m lies close within depths of 15m, 1 mile NW of North Point. North Ledge, 3m high, 0.4 mile SSE of North Point, lies on a reef extending 0.5 mile SSE of the point. North Blinder, a shoal with a depth of 3.3m and which breaks heavily, lies 0.3 mile SSE of North Ledge. Black Jacob Rock, 2.3m high, lies 0.3 mile within the N extremity of the reef extending 0.8 mile NNW of Owen Island.

Robbe Islet, 275m ENE of Black Jacob Rock, is 2m high and surrounded by drying rocky ledges, and forms good protection to the anchorage off the town. South Blinder, a shoal which breaks and has a depth of 2.1m, lies 0.2 mile N of Black Jacob Rock. Inner Blinder, a dangerous rocky shoal, which dries 1.2m, lies 275m N of Robbe Islet.

The entrance to Port Nolloth lies between North and South Blinders, but the passage, which is 300m wide, is obstructed by The Bar, a rocky shoal having a least depth of 3.6m. The sea breaks heavily on both sides of the channel with a swell, and frequently breakers extend across the passage, preventing vessels from entering or leaving for as long as three consecutive days.

The channel, which leads S to the quay and anchorage, was reported (1990) to be dredged to a depth of 3.3m. A long and narrow shoal, with a depth of 1.2m, lies between Inner Blinder and the dredged channel. The head of the L-shaped pier is 66m long, with a depth of 3.6m alongside. Vessels of up to 1,100 dwt, having a maximum length of 61m and maximum draft of 3.6m, can be accommodated.

There are two private wharves, one of which accommodates fishing vessels and the other used for the berthing of diamond-prospecting vessels.

Aspect.—The Bar Light is situated 1 mile SE of North Point. Port signals are shown from the light when the bar is closed.

Port Nolloth Light, about 100m distant, bearing 066 from The Bar Light, is shown from a triangular daymark, point down, surmounted on a framework tower. A radiobeacon and racon are situated at the tower. A radio mast, 30m high, stands close S.

"F" Beacon, conical and black, with a triangular topmark of red and white stripes, lies 0.3 mile, 066˚ from Port Nolloth Light. The two lights and the beacon, in range 066˚, lead over The Bar.

The square tower of the Roman Catholic Church stands close SSE of Port Nolloth Light; and an oil tank is conspicuous near the L-shaped pier, about 0.4 mile, farther S.

A range of red sandhills, 183m high, rises 5 miles E of the port, and forms a background for the entrance range.

The Augrabis Mountains rise to an elevation of 493m about 14 miles inland.

Fairway Lighted Buoy is moored slightly N of the range line, about 100m inside The Bar. The channel leading to the L-shaped pier is marked by buoys. Two piers, about 61m long with shoal depths alongside, are conspicuous about 0.2 mile NE of South Point.

Pilotage.—Vessels unfamiliar with the port should not attempt to enter it without first contacting the Port Officer for instructions. No pilot is available, but the Port Officer will give directions for entering the harbor and for berthing on VHF channel 16. Entry and departure from the port are done only by day. Vessels should give an advance notice of 72 hours.

Regulations.—Port Nolloth is not a port of entry. Vessels arriving from non-South African ports must obtain permission from Cape Town or other South African ports.

Signals.—There is a signal station at Port Nolloth Light. Vessels can communicate by the International Code of Signals, by Morse code, and by VHF or radiotelephone.

The following signals are displayed by day:

1. A black and yellow basket at the dip indicates that the bar is dangerous.
2. A black and yellow basket close up indicates that the bar is impassable.
3. One black ball indicates that vessels must keep clear of an incoming vessel.
4. Two black balls indicate that vessels must keep clear of an outgoing vessel.

The following signals are displayed at night from the Bar Light:

1. A fixed white light indicates that the bar is passable.
2. A fixed red light indicates that the bar is impassable.
3. Both white and red fixed lights indicate that the bar is dangerous, but not impassable.

Anchorage.—The best anchorage outside the reefs is in 42m, sand, nearly 1 mile outside The Bar. The bottom is rocky E of this. This is a favorable position for communicating with the shore, but vessels at anchor here frequently roll heavily. Landing should not be attempted in ships' boats.

The inner anchorage lies between Robbe Islet and the town. Vessels may lie there in safety, for, although the sea may break heavily on the reefs and across the entrance, no heavy seas come far within them. There are depths of 2.1 to 3.7m in the anchorage. The best position is W of the pier, in about 3m. The lighter anchorage is farther S. The N end of the harbor is useless, as with a moderate SW swell the sea breaks over the N reef and onto the beach at high tide.

Directions.—The range line must be closely followed crossing The Bar. After reaching Fairway Lighted Buoy, course can gradually be altered to pass through the buoyed channel to the pier and inner anchorage.

Port Nolloth to Hondeklipbaai

5.33 John Owen Bay (29˚16'S., 16˚53'E.), E of Owen Island, is a small indentation open to the SW. Breakers extend across the entrance to the bay with a moderate swell from the S. The whole bay is a mass of broken water with a heavy swell. The bay should not be entered without local knowledge.

MacDougalls Bay is a slight indentation 1 mile S of Port Nolloth. Reefs, with several rocks and islets, extend N and S of the entrance point.

Gooappunt (29˚17'S., 16˚53'E.) is 1.5 miles SSE of MacDougalls Bay. A radio mast, 125m high and marked by red obstruction lights, stands 0.3 mile E of Gooappunt.

Oubeepbaai (29˚20'S., 16˚54'E.), rockbound and providing no shelter, lies 1.5 miles SE of Gooappunt. A conspicuous sandhill, 25m high, lies close S of the bay.

Penguin Rocks (29˚36'S., 17˚01'E.), 2m high, lie about 0.5 mile offshore, about 18 miles SSE of Oubeep Cove. Rocks, which break with a heavy swell, extend about 1 mile W and 2 miles S of Penguin Rocks.

The coast S of the rocks is foul for nearly 1 mile offshore to the mouth of Buffelsrivier. Wolfberg rises to an elevation of 203m, with a large cairn of stones at its summit, 4 miles NE of Penguin Rocks. Buffelskop, 3.5 miles E of Penguin Rocks, rises to 214m and has a trigonometrical beacon on its summit. Both hills are good landmarks. A conspicuous tower, 17m high, stands 1.5 miles ESE of Buffelskop. The headgear of a diamond mine, with its associated buildings, is conspicuous 3.5 miles SSE of Penguin Rocks.

The mouth of Buffelsrivier, with its 0.7 mile long sandy beach, lies 1 mile SSE of the mine headgear. A stranded wreck lies off the mouth of the river. The bed of the river is usually dry for a considerable distance inland.

The mining town of Kleinsee, 1 mile inland, on the S bank of the river, is prominent from seaward on bearings between 040˚ and 100˚. A sand cliff, 102m high, on the steep S side of an old mine dump is prominent when viewed from a bearing of less than 115˚.

The coast between the mouth of Buffelsrivier and Hondeklipbaai, about 40 miles SSE, is bordered by dangerous submerged rocks, some awash, extending up to 1.5 miles offshore. Gorab, 1.5 miles inland and 5.5 miles SSE of the mouth of Buffelsrivier, rises to an elevation of 189m, and has a beacon on its summit. It is the highest point of a flat range of hills.

5.34 Melkbospunt (29˚49'S., 17˚05'E.), 8 miles S of the mouth of Buffelsrivier, is low-lying and fringed with rock. Numerous white mining dumps lie close inland of the point. Swartklip, a rock, lies 6.5 miles SSE of Melkbospunt. It is a dark-colored rock, 2.5m high, lying close inshore off an inconspicuous rocky point.

Naganas Point (Naas Naaspunt) (29˚56'S., 17˚07'E.) can be recognized by a conspicuous rock near its extremity. A prominent wreck lies 0.8 mile SSE of Naganas Point. In 1977, a stranded wreck lay 6.7 miles SSE of Naganas Point. Another stranded wreck lies 2.5 miles farther SSE.

Swartkop, 287m high, 6 miles ESE of Naganas Point, is the highest of the coastal hills in the vicinity.

Caution.—The coast between Melkbospunt and **Skulpfonteinpunt** (30˚06'S., 17˚11'E.), 18 miles SSE, is fringed with dangerous submerged rocks. The area has not been closely examined and vessels are cautioned to stay at least 4 miles offshore. During fog or low visibility and at night this distance should be increased to 10 miles. A conspicuous ruin lies close to the point.

Somnaasbaai, 4 miles SSE of Skulpfonteinpunt, has a sandy beach where landing may be effected on a calm day. Wolfkop, 3.5 miles farther SSE, and 1.2 miles inland, is 74m high, and is

a mine dump. A beacon is situated on its summit. The mining settlement of Koingnaas, 2 miles NE of Wolfkop, is conspicuous because of its white buildings which have bright green roofs.

Swartlintjiesrivier (30˚16'S., 17˚16'E.), 3 miles S of Koingnaas, is entirely barred by sand; rocks extend 0.5 mile from it.

Hondeklipbaai

5.35 Hondeklipbaai (30˚19'S., 17˚16'E.) receives its name from an isolated block of granite, 5m high, called Hondeklip or Dogstone. The stone lies 0.2 mile inland and 0.4 mile S of the head of the bay. The bay, suitable only for small vessels, is 0.3 mile wide, but its entrance is narrowed to 100m by rocks and foul ground extending from both entrance points. It is sheltered from all but W winds, which seldom occur. There is a beach in the S part of the head of the bay.

A jetty, with a large building at its extremity, extends NW from the S end of the beach. Hondeklip Bay Light is shown 0.2 mile N of the bay. A directional light is shown at the head of the bay, although it has been reported (1998) that the directional light is unreliable and should not be used to navigate into the bay.

Spitfire Reef, with a depth of 5.5m and on which heavy rollers occasionally break, lies 0.5 mile WSW of the S entrance point of the bay. Spitfire Rock, on which the sea breaks, lies 0.8 mile E of Spitfire Reef. These dangers should be given a wide berth.

The current off the coast in the vicinity of Hondeklipbaai usually runs N, but after a long continuation of N winds, it sets in the opposite direction.

The best anchorage outside the bay is in 10 to 15m, with Hondeklipbaai Light bearing 095˚, rock bottom, but good holding ground.

Hondeklipbaai to the Olifants River

5.36 Plaatklippunt (30˚20'S., 17˚17'E.), 1 mile S of Hondeklipbaai, has a stone cairn upon it. A stranded wreck lies on a rocky point 0.8 mile SSE of Plaatklippunt. The coast between Plaatklippunt and Rooiwalbaai, 8 miles SSE, is bordered by submerged rocks and breakers extending 0.5 mile offshore and possesses few features that can be distinguished at any distance, the hills being long ridges without definite summits.

Rooiwalbaai (30˚27'S., 17˚21'E.), 8.5 miles SSE of Plaatklippunt, has a vertical cliff of red sandstone, 11m high, at its head. The almost level summit of the cliff is surmounted by a sloping bank of white sand of about the same height. The red cliff with its white crest is easily identified when bearing about 065˚. The bay affords no shelter.

Extending for nearly 1 mile NW from the N point of Rooiwalbaai, is a reef of above-water and submerged rocks, terminating in a rock, 1.5m high, 0.3 mile from shore.

Spoegrivier, the mouth of which is closed, empties into a sandy bay, 1 mile wide, approximately 1 mile S of Rooiwalbaai. A group of rocks, which breaks, lies 0.5 mile off the S entrance point of the bay.

Spugmond (Kanoepkop), rising to 179m, 2.7 miles ENE of the river mouth, is the most prominent of the ill-defined coastal hills in the vicinity. It may be recognized by brown patches appearing on the N side.

The coast between the mouth of Spoegrivier and the Olifants River, 86 miles ESE, has few features that can be distinguished at a distance.

Caution.—Great care should be exercised along this coast due incomplete surveys of the area.

5.37 Strandfonteinpunt (30˚34'S., 17˚25'E.), 6 miles SSE of the mouth of Spoegrivier, has a submerged reef, on which the sea breaks heavily, extending about 0.7 mile WSW from it. Roodewal (Toringkop) rises to an elevation of 193m, about 2.5 miles ENE of the point. A conspicuous ruined signal tower stands on its summit, with a trigonometrical beacon close to it. Farther inland, a range of mountains, rising to elevations exceeding 1,500m, lies about 40 miles inland and parallel to the coast, between Spoegrivier and the Olifants River. The Twins, rocks, which usually break, lie about 0.7 mile offshore, 15 miles SSE of Strandfonteinpunt. They should be given a wide berth.

Groenrivier (30˚50'S., 17˚35'E.) lies 4.5 miles SE of The Twins. The mouth of the river is usually closed by sandbanks. A conspicuous building stands 1 mile NNE of the river entrance. A light, at which a radiobeacon is situated, is shown 1 mile S of the river mouth. Island Point, 3 miles farther SSE, has a conspicuous wreck on it. A conspicuous boulder lies 1.2 miles N of Island Point. The mouth of the Brak River lies 13 miles SSE of Island Point. Ruitersvlei, a swampy area which is flooded at HWS, lies at the closed mouth of the river. Submerged rocks, which break, extend about 1 mile seaward from the coast in this vicinity.

Toringberg (31˚02'S., 18˚00'E.) rises to an elevation of 550m about 15 miles ENE of the entrance to the Brak River. When viewed from the vicinity of the river entrance, it has steep N and S sides. The mouth of the Sout River, which is closed, lies 10.5 miles SSE of the Brak River. A large rock, 4m high, lies 100m offshore, close N of the mouth of the Sout River. Krakeelklip, 350m high, lies 16 miles ESE of the river and is the best landmark in the vicinity.

5.38 Jakkalshok (31˚21'S., 17˚54'E.), 7 miles SSE of the mouth of the Sout River, may be recognized by the derelict mining machinery near the coast. Breakers have been observed extending seaward for some distance off Jakkalshok. Rocks extend 0.3 mile off a small unnamed point 6.2 miles farther SE, and two isolated drying rocks are charted 2.2 and 3 miles SE of Jakkalshok. Vessels are advised to stay well offshore.

Between Jakkalshok and Cliff Point, 18.5 miles SSE, several conspicuous buildings stand within 2 miles of the coast.

Cliff Point (31˚36'S., 18˚07'E.) is a remarkable double point of rugged formation, on which there are numerous mine workings and dumps. Graafwaterkop, a rounded hill, 130m high, 1.7 miles N of Cliff Point, has a beacon on its summit and is conspicuous.

Elephant Rock, 15m high, lies 3 miles SSE of Cliff Point, and 0.4 mile off the coast, to which it is almost connected by a reef of above-water rocks. A rocky reef extends about 0.1 mile from its W extremity.

The mouth of the **Olifants River** (31˚42'S., 18˚11'E.), 7 miles SSE of Cliff Point, is obstructed by a bar with a depth of 0.6m. The bar usually breaks. The town of Papendorp stands 1 mile E of the entrance, on the shore of a lagoon. A conspicuous school stands 1.5 miles NE of the river mouth.

From the Olifants River to Lambert's Bay between Jakkalshok and Cliff Point, 18.5 miles SSE, several conspicuous buildings stand within 2 miles of the coast. of Lambert's Bay

5.39 The coast between Olifants River and Cape Deseada, 37 miles SSE, in contrast to the coast N of the Olifants River, has long and sandy stretches interspersed with rocky headlands. In general, the farther S one proceeds, the coast becomes greener and more cultivated, and the coastal and inland ranges of hills provide more distinctive landmarks.

Strandfontein (31˚45'S., 18˚14'E.), 4 miles SSE of the mouth of the Olifants River, is a holiday resort, and its white buildings are conspicuous when bearing ESE. A white hotel stands on high ground behind the village. A radio mast, with an elevation of 226m and marked by a red light, and another radio mast, with an elevation of 107m, and also marked by a red light, are situated 8 miles NE and 1.2 miles S, respectively, of Strandfontein. A light, at which a radiobeacon is situated, is shown from the S entrance point of Doringbaai, 3.5 miles S of Strandfontein. The bay is accessible to small fishing vessels with local knowledge. The coast between Strandfontein and the bay is generally rocky.

Cape Donkin (31˚56'S., 18˚16'E.), 7.5 miles S of Doringbaai, forms the S entrance point of Donkins Bay.

5.40 **Lambert's Bay** (32˚05'S., 18˚18'E.) (World Port Index No. 46740), 9 miles S of Cape Donkin, is 0.5 mile wide, with Bird Islet (Penguin Island), 12m high, lying off its SW point. The bay is backed by scrub-covered sand dunes, 6 to 20m high, one of which, Meidjies Sand Dune, is conspicuous 1 mile NE of Bird Islet. It is a fishing harbor and seaside resort; the town of Lambert's Bay stands in the SE part of the bay.

The bay is open NW, but is partially sheltered from SW winds by Bird Islet. The SW swell, though slight outside, frequently enters the bay, rounding the reefs extending from the islet and making the anchorage uncomfortable.

East Breakwater extends 0.2 mile NE of Bird Islet; a dredged channel leads from the vicinity of the head of this breakwater to Inner Harbor, which lies S of Bird Islet. West Breakwater and South Breakwater, which join Bird Islet to the mainland, form the W side of Inner Harbor. Random Mole extends 0.1 mile N from the mainland, on the E side of the dredged channel.

The limits of the port extend from a point on the shore about 0.5 mile NE of the directional light, then NW for 0.5 mile, then SW for 0.6 mile, and S to the shore.

Depths—Limitations.—The SE side of East Breakwater, near the outer end, is dredged to 5m for coasters. The dredged channel, leading to Inner Harbor, was dredged to 3m in 1975. The basin in Inner Harbor was also dredged to 3m and a wharf, 150m long, lies on the S side of the basin.

Fisherman's Ledge, with a least depth of 4.2m, lies 0.8 mile NNE of the NW end of Bird Islet, and extends 0.6 mile offshore. Die Mond se Blinder, a rock with a depth of 5.4m, lies 0.2 mile ENE of the head of East Breakwater. Ewartsklip, a rock, 4.2m high, lies 0.1 mile NW of Bird Islet. Koppies, a rock awash, lies 0.1 mile N of Ewartsklip and a depth of 4.2m lies about 100m farther N.

Spence se Klip, a group of pinnacle rocks, has a least depth of 8.2m, about 0.5 mile NW of Bird Islet. Depths of less than 11m extend about 0.2 mile farther W, and depths of 12.1m lie 0.5 mile farther NW. Depths of less than 5m and dangerous rocks extend up to 0.3 mile SW of Bird Islet.

Aspect.—A light is shown from the head of East Breakwater. A directional light is shown 0.3 mile S of East Breakwater Light. Conspicuous chimneys stand 100m and 0.2 mile, respectively, SW of the directional light. The spire of a church is conspicuous 0.2 mile ESE of the same structure.

Anchorage.—Vessels with local knowledge and with drafts of up to 4m can anchor, in 12m, about 250m N of the head of East Breakwater. This anchorage is well-sheltered from the prevailing SW swell, but vessels should be prepared to sail as the sea can become troublesome with little or no warning, filling the whole bay with breakers. Vessels at anchor in Lambert's Bay should proceed to sea immediately when the wind gets N of W.

Directions.—Vessels should approach from NW with East Breakwater Light bearing 130 . When about 0.3 mile off, alter course to 090 .

Lambert's Bay to Cape Deseada

5.41 **Langvlei** (32˚13'S., 18˚21'E.), a shallow lagoon and bird sanctuary, extends inland from the coast, 7 miles S of Lambert's Bay. A radio mast, 94m high and marked by a red light, stands at the W end of the lagoon.

Cape Deseada (32˚19'S., 18˚19'E.), 7 miles farther S, appears bold and cliffy from a distance of about 9 miles, as it rises steeply from the sea to the summit of a flat range of hills, 192m high. The cape ends in a low sandy point which is not easily seen from seaward. A radio mast, with an elevation of 160m and marked by a red light, stands close within the cape. A sandy patch is conspicuous immediately N of the cape. A 14.3m patch, which breaks occasionally, lies about 2 miles NNW of Cape Deseada.

Caution.—Due to the possible existence of uncharted rocks and shoals, vessels should exercise extreme caution when navigating within 6 miles of the coast.

Saint Helena Bay

5.42 Saint Helena Bay lies between Cape Deseada and **Stompneuspunt** (32˚42'S., 17˚59'E.), 29 miles SW. The entrance of **Great Berg** (32˚46'S., 18˚09'E.), at the head of the bay, consists of a cutting through the sand, protected by a breakwater on each side.

In the N part of Saint Helena Bay the shore is fairly steep-to, with a depth of 20m lying within 1 mile of the beach. In the SE part of the bay, depths of less than 20m extend 4 to 5 miles offshore, and the depths appear to be decreasing. The bottom of the bay is mostly sand and mud, but a great part of the SW side of the bay, from the mouth of Great Berg to a point 0.5 mile S of Stompneuspunt, is fringed with rocks, some of which lie about 0.5 mile offshore.

About 5 or 6 miles SSE of Cape Deseada, the country rises to abrupt crags and broken ridges of lofty hills, which extend 30 miles in the same direction and terminate in Piketberg, a range of mountains.

An isolated depth of 4.6m lies 4 miles N of the entrance to the Berg River. Varkvlei Farm, a cluster of white farm buildings, is conspicuous nearly 3 miles WSW of the entrance of Great Berg and help to identify Doctor Reef.

The entrance to Great Berg and the channel leading to the wharves at Laaiplek have been dredged to 3m. The tidal rise is 1.6m at MHWS.

Lights are exhibited at the head and inner end of each breakwater at the entrance of Great Berg. A racon is situated at the Inner East Breakwater light.

The fishing town of Laaiplek, close within the river entrance, and the town of Velddrif, close E, are situated on the N bank of Great Berg. Several fish factories with their jetties lie along the SW shore of the bay. A conspicuous water tower stands in Laaiplek.

Port Owen, a yacht harbor, is situated on a tongue of land between Laaiplek and Velddrif, 1.5 miles within the harbor entrance. The port accommodates vessels having drafts of up to 2.2m.

Caution.—Shallower depths than charted have been reported (1993) 5 miles NE of the entrance to Great Berg.

5.43 **Kleintafelberg** (32˚33'S., 18˚28'E.), 16 miles SSE of Cape Deseada, rises to an elevation of 367m and appears to be much closer to the coast than it actually is. It is a conspicuous dark hill with a plateau, but its summit is rather uneven. Some of the mountains of the higher land behind are table-topped.

Kapteinskloof (32˚43'S., 18˚35'E.), 1,055m high, is a very conspicuous and well-defined summit of the Piketberg Range. This peak and range, from 10 miles offshore, appears as if situated close over the coast and must not be mistaken for the higher range farther inland.

The highest part of the range farther inland is bold, with its N face appearing precipitous. On a SW bearing, this part of Piketberg Range appears as two sharp peaks close to one another, with the E peak being the lower.

A water tower, with an elevation of 27m, is conspicuous at the village of **Dwarskersbos** (32˚42'S., 18˚14'E.), 12.5 miles E of Stompneuspunt. A radio mast, 98m high and marked by a red light, stands 5 miles NE of the village.

Caution.—An area of foul ground, 3 miles long, extends up to 1.2 miles off the coast close SW of Dwarskersbos.

5.44 **Doctor Reef** (32˚46'S., 18˚06'E.) extends about 2.5 miles offshore; at its extremity is a 1.5m patch that breaks at low tide and during rough weather.

Sandy Bay (32˚45'S., 18˚01'E.), 4.5 miles WNW of Doctor Reef, is the main harbor of the bay and is sheltered N by a breakwater extending E from Sandy Point. Considerable reclamation has taken place in the port. Two oil tanks are conspicuous 0.4 mile W of Sandy Point. A light is exhibited from the head of the breakwater at Sandy Point. A buoy marks a foul area near the breakwater head. A dangerous wreck lies within the harbor and is charted.

A berth, 74m long, with a depth of 6.1m alongside for coasters, lies on the S side of the breakwater extending W of Sandy Point. A pier, with an alongside depth of 4.5m at its head, extends 200m E of the coast 0.4 mile SSW of Sandy Point.

Drying reefs, with off-lying submerged rocks, extend 2 miles from Sandy Point to the S end of Stompneusbaai. Three small inlets penetrate the reefs, the NW of which is Jaloersbaai, lying 0.8 mile SSE of Sandy Point.

Simpson's Rock, which dries 0.5m, lies near the middle of Stompneusbaai. A cluster of above-water rocks, 7m high, lies 0.1 mile N of Simpson's Rock.

5.45 Stompneuspunt is the NE extremity of a sandy peninsula, which projects 1.5 miles from the coast and forms the W side of St. Helena Bay. Range lights lead into Stompneusbaai. There is a conspicuous white tower at the head of the bay.

Vessels can anchor in convenient depths in St. Helena Bay. However, N winds in winter may cause a sudden increase in sea and swell.

North Blinder (Martin Rock) (32˚38'S., 17˚58'E.), a rocky ledge with a least depth of 5.8m, lies 4.5 miles N of Stompneuspunt. It rises from depths of 40m and breaks with a heavy swell.

A reef extends about 0.2 mile NE of Stompneuspunt; the wreck of a trawler, with a depth of 0.6m, lies 0.5 mile SE of the point. A rocky ledge, swept to a depth of 9.4m, lies 2.2 miles ESE of Stompneuspunt and 1.5 miles offshore. A rock, with a depth of 7.8m, lies 1.5 miles ESE of Stompneuspunt.

Saint Helena Bay to Saldanhabaai

5.46 **Cape Saint Martin** (32˚43'S., 17˚55'E.), a low, sandy point marked by a light, lies 3 miles WSW of Stompneuspunt. An isolated rock, visible at LW, lies 0.5 mile NNW of Cape Saint Martin. A current meter is moored 12.5 miles WNW of Cape Saint Martin.

Brittania Blinder, a steep-to reef with a least depth of 3.3m, lies 3 miles WNW of Cape Saint Martin. The sea breaks on it with a moderate swell.

Groot Paternosterpunt, 2 miles SW of Cape Saint Martin, has a reef and several islets extending about 1.5 miles WNW of it. Seal Island, 12m high and marked by a light, is the outermost islet. A light, at which a racon is situated, is shown from a mast on Seal Island. A dangerous submerged rock lies 1 mile S of Seal Island.

Klein Paternosterbaai, 4 miles S of Groot Paternosterpunt, is an important fishing station, and consists of a long sandy beach backed by sand dunes. The white houses of the village of Paternoster, on the S shore of the bay, are conspicuous. Rocks extend 0.5 mile NNW of the W entrance point of Klein Paternosterbaai. A dangerous rock lies about 0.3 mile ENE of the same point.

Tambourine Rock, 1.6m high, is conspicuous 3 miles S of Groot Paternoster, and 0.4 mile offshore.

Kasteelberg, 3 miles E of Paternoster, rises to a conspicuous summit, 184m high.

Anchorage can be taken by vessels with local knowledge, in 9m, well-sheltered from the prevailing swell, with the factory situated close S of the W entrance point of Klein

Paternosterbaai, bearing 222˚, distant 0.5 mile. This anchorage should not be used with wind or swell between N and W.

Jim Crow Rock, which dries 0.5m, lies 2.2 miles N of Cape Columbine, at the NW end of a rocky ledge on which the sea breaks in heavy weather. Vessels entering Paternosterbaai are advised to pass N of Jim Crow Rock.

Courtesy of Simon Baillie-Cooper

Cape Columbine Light

5.47 Cape Columbine (32˚50'S., 17˚51'E.), 6 miles SSW of Groot Paternosterpunt, is surmounted by Castle Rock, a conspicuous boulder. The cape is bordered by rocky reefs and an area of foul ground lies 1 mile NNW of the cape. A rock, with a depth of 1.8m, lies 1.5 miles SW of Cape Columbine.

A light is shown from a white, square, concrete tower, 15m high, on the cape; a radiobeacon is situated at the light.

A conspicuous sand patch lies 2.5 miles SE of Cape Columbine. Cape Columbine is radar conspicuous.

Caution.—The coast between Cape Columbine and North Head, 14 mile S, is rugged and much indented, with numerous off-lying rocks, many of which rise almost perpendicularly from depths of 46m, making it one of the most dangerous on the coast of South Africa. The greatest care must therefore be exercised when navigating in this area. At night, or in thick weather, vessels should not attempt to navigate in depths of less than 100m, which will be found 4 to 5 miles off the coast. Depths of less than those charted have been reported up to 30 miles from the coast.

In 1976, a local magnetic anomaly, with deviations of up to 5˚E, was reported between 70 and 130 miles NW of Cape Columbine.

5.48 Duminypunt (32˚55'S., 17˚51'E.) lies 5 miles S of Cape Columbine, with exposed Noord-Wesbaai in between. A conspicuous water tower, 205m high, stands on the summit of a hill, 6.5 miles E of Duminypunt.

Two rocks, with depths of less than 1.8m, and Soldiers Reef, awash, lie 2 miles NW and 1.2 miles N, respectively of Duminypunt.

Voeleiland, the westernmost and larger of two islets, lies 1.5 miles NNE of Duminypunt, and 0.3 mile offshore. A reef, parts of which are awash and about 0.8 mile long, lies with its SW extremity 1.5 miles WSW of Duminypunt. A pinnacle rock, which seldom breaks and has a depth of 2.4m, lies 0.6 mile WSW of Duminypunt, and 0.2 mile E of the N end of the previously described reef.

Wesbaai lies between Duminypunt and **Hospitalpunt** (32˚57'S., 17˚53'E.), 3 miles SE. A detached reef, awash, lies in the S part of the bay 1.2 miles NW of Hospitalpunt. There is a 10.3m patch 2 miles WNW of the point. A conspicuous sand patch lies 1.5 miles SE of Duminypunt.

Hospital Rock, 7m high, lies at the outer end of a reef which extends about 0.4 mile W of Hospitalpunt. Jacobs Reef, on which there is an islet, 3.2m high, extends 1 mile W of Hospitalpunt. Dangerous reefs, some awash at HW, lie within 0.7 mile N and 0.5 mile S of Jacobs Reef.

Temporary anchorage, in fair weather, can be taken, in 18m, about 0.8 mile S of Duminypunt.

The Sisters is a group of above-water rocks, extending 0.5 mile offshore, 2 miles SSW of Hospitalpunt.

Tooth Rock (33˚00'S., 17˚52'E.), 0.2m high, lies 1 mile farther SSW, nearly 1 mile WNW of Morrisons Point. A shoal patch, with a depth of 6.5m, lies 0.2 mile SW of Tooth Rock.

The entrance to Danger Bay, between Morrisons Point and Long Point, l.2 miles SSE, is reduced to a width of about 0.6 mile by rocks extending from both entrance points. The bay is open W and dangerous for strangers to approach.

Bay Rock, awash, lies 0.6 mile SW of Morrisons Point; Cap Rock, which dries, lies 1 mile W of Long Point. A rock, with a least depth of 2.4m, lies 0.5 mile WNW of Long Point.

Saldanha Bay (33˚02'S., 17˚58'E.)

World Port Index No. 46750

5.49 Saldanha Bay (Saldanhabaai) is entered between **North Head** (33˚03'S., 17˚55'E.), lying l.2 miles SE of Long Point, and South Head, 3.7 miles SSE. It is an ore-loading port, capable of accommodating deep-draft vessels. It is easy of access, and is probably the safest harbor in southern Africa.

The town of Saldanha, in the NW part of Saldanha Bay, is a well known yachting center and holiday resort. Fishing is also an important industry.

Winds—Weather.—The climate is temperate. The average high temperature year round is 20˚C while the average low

temperature is in the region of 11˚C. Sea water temperature averages 16˚C.

The prevailing winds are from SSW in the summer and the NNE in the winter. Rainfall figures are about 30cm per year. Saldanha Bay is a winter rainfall area.

Fog occurs generally in the March to August period.

Tides—Currents.—The tidal rise at Saldanha Bay may be as much as 2m. The tidal currents appear to set fairly in and out of the entrance to Saldanha Bay, at a velocity of 0.2 to 0.5 knot. At a short distance outside the bay, the current sets in a N direction at a velocity of 0.5 to l knot. Strong tidal currents set in and out of Langebaan Lagoon, with the outgoing current attaining a velocity of 3 knots at springs.

Depths—Limitations.—Langebaan Lagoon, the SE arm of Saldanha Bay, lies S of Skaapeiland (33˚05'S., 18˚01'E.) and extends 8 miles SE. It is encumbered by sandbanks near the entrance and has drying sandbanks and saltbeds near its head. Navigation is feasible only for shallow-draft vessels with local knowledge.

The harbor has been developed to accommodate vessels of 350,000 dwt, loaded, with a maximum draft of 21.5m. The dredged channel has swept depths of 23.2 to 23.7m.

An ore loading jetty, 650m long, lengthened by an oil jetty 310m in length, lies at the outer end of a causeway which extends 1.7 miles SSW from the N side of Saldanha Bay. Berths alongside the ore and oil jetties are swept to 23m. Vessel draft is limited to 20.5m. Although there are berths on either side of the ore quay, only one vessel can be loaded at a time. The ore/oil jetty is approached through Navigation Channel, which is swept to a minimum depth of 23.2m. A turning circle, 0.3 mile in diameter and swept to a depth of 23.2m, lies at the seaward end of the ore/oil jetty.

A general cargo quay, 250m long, is situated on the W side of the breakwater, 0.5 mile SW of a conspicuous control tower. It is approached through a buoyed channel, swept to a depth of 12.5m over a width of 150m. The quay has a depth of 12m alongside and can accommodate vessels with a maximum length of 200m and maximum draft of 11.5m. Ro-ro vessels can be berthed at the general cargo quay provided the vessel's length is less than 200m.

Off the quay there is a turning circle, 275m in diameter, that has been swept to a depth of 12m. Severe surging can occur at this quay.

Multipurpose Quay, 110m long, and Rock Quay, 85m long, are situated on the W side of the root of the breakwater and have depths of 7.7m alongside. They are protected by a spur extending 0.2 mile WNW. A drying rock lies nearly 50m WSW of the head of the spur. The quays are approached by a channel, 130m wide, that is dredged to a depth of 7.7m.

Government Jetty, 0.7 mile NW of Hoedjiespunt, is a wood and concrete structure, 343m long, projecting NE into the bay, with depths of 6.5m alongside. A surge, particularly along the S side, often makes it impracticable for vessels to berth.

Sea Harvest Factory Quay, 540m long, extends ESE from the root of the Government Jetty. There are depths of 6m alongside.

Aspect.—Hoedjiespunt (33˚02'S., 17˚58'E.), 3 miles ENE of North Head, lies at the extremity of a narrow, rocky peninsula extending about 1 mile ESE from the W shore of Saldanha Bay. It is connected to Marcus Island, 1 mile SSE, by a breakwater. The ore-loading jetty lies at the outer end of a causeway which extends SSW from the reclaimed area in the NE part of Saldanha Bay.

North Head (33˚03'S., 17˚55'E.) is low and marked by a light. Schooner Rock, 7.5m high, is the outermost and highest of a group of above-water rocks extending about 0.2 mile SSW of the point. A rock, with a depth of 23.5m, lies 0.7 mile SSW of Schooner Rock.

Baviaansberg attains an elevation of 72m a distance of 0.5 mile N of North Head. Malgaskop rises to an elevation of 111m about 1 mile farther ENE, and has a large building near its summit.

Malgas Island, 7m high, lies 0.7 mile E of North Head and is surrounded by shoals and rocks extending up to 0.3 mile offshore. Needle Rock, 5m high and surrounded by above-water rocks and reefs, lies 0.2 mile NNE of Malgas Island.

Marcus Island, 9m high, lies 3 miles E of North Head. It is marked by a light equipped with a racon at its S extremity. There is a conspicuous black rock, 6.7m high, at the S tip of the island. Hospital Rock, 6.1m high, lies 100m S of the island.

Marcus Island is no longer an island, but is connected to Hoedjiespunt, nearly 1 mile N, by a breakwater which has a beach on its seaward side so constructed as to absorb the violence of the seas breaking upon it.

The conspicuous three-story Port Control Center building and a flagstaff are situated on the summit of the 37m hill located 2 miles NW of Hoedjiespunt. Another hill, 41m high, lies 0.9 mile farther NW.

South Head (33˚06'S., 17˚57'E.), the S entrance point of Saldanha Bay, is low, rocky, and marked by a light. It has a steep, cliffy summit, 113m high, close behind it.

There are shoals, with depths of 20m, 1 mile WSW and W of South Head. Jutten Island, 1.2 miles N of South Head, has a 34m high cone-like summit toward its S end, which is covered with guano and gleams white in the sunshine. Rocks extend about 0.2 mile N of the island, the N rock drying at very low spring tides.

Wasserfall Bank lies 0.8 mile NW of Jutten Island and has a least depth of 17.5m. About midway between the bank and Jutten Island is a shoal with a depth of 10.5m.

Lloyd Bank, with a least depth of 11.5m, extends 0.8 mile W of Jutten Island. During strong winds and heavy SW swells, the sea breaks over the two banks and the area between them and the island.

Elandspunt, 1 mile NE of Jutten Island and 1.2 miles S of Marcus Island, is rocky, comparatively steep-to, and marked by a light.

Vlaberg, 193m high, is conspicuous 2.7 miles E of South Head, on the W side of Langebaan Lagoon. Constable Hill, 189m high and 1.5 miles farther SE, is also conspicuous, and the factory building of an aluminum phosphate works is conspicuous on its N face.

Salamanderpunt, 1.2 miles ESE of Elandspunt, has the prominent buildings of a disused whaling station on it. A prohibited area, extending 0.3 mile offshore, surrounds the peninsula from the middle of Plankiesbaai, 1.5 miles SE of South Head, to a position 0.5 mile SW of Meeueisland. Juttenbaai, Stormbaai, Salamanderbaai, and Donkergatbaai are within the prohibited area.

Lynch Point, on the E shore of Saldanha Bay, 3.2 miles E of Marcus Island, is a rocky promontory surmounted by a scrub-covered sand hill, 40m high, with a trigonometric beacon on its summit. A yacht basin lies close SE of the point.

Lights, in range 056˚, lead between Malgas Island and Wasserfall Bank. The front light, which is only exhibited when vessels are expected, is situated 0.3 mile NE of Marcus Island Light; the rear light is shown from the head of the ore loading jetty. Lights, in range 080˚, close S of Lynch Point, lead through the entrance channel to Saldanha Bay.

The entrance to Navigation Channel, 0.7 mile SE of Marcus Island, which leads to the ore loading jetty, is marked by lighted buoys.

North Lighted Buoy, North East Lighted Buoy, and East Lighted Buoy in Saldanha Bay indicate the position of the "safety line," to seaward of which ore carriers and tankers should keep when in light condition.

Lighted buoys mark the dredged approach channel leading to the general cargo quay on the W side of the causeway. The ore-loading jetty and causeway are lighted at night.

A stockpiling area lies at the root of the causeway; the control tower is conspicuous in the SW part of the stockpiling area. A conspicuous chimney stands N of the stockpiling area.

Lynch Blinder, a rock which uncovers during swells and over which the sea nearly always breaks, lies nearly 1 mile W of Lynch Point. It is marked by a lighted buoy. Inner Lynch, with a depth of 4.2m, lies 0.4 mile ENE of Lynch Blinder. Roman Bank, with a least depth of 7.6m, lies 1.5 miles NW of Lynch Point.

Hoedjieskop, 72m high, with a remarkable rock pillar and beacon on its summit, is conspicuous 1.2 miles NW of the Port Office. Seven Blinders, a small group of rocks with depths of less than 2m, lie 1.5 miles NNE of Hoedjiespunt. They are marked by a lighted buoy.

Pilotage.—Pilotage is compulsory, and vessels are warned not to cross the line joining North Head Light and South Head Light, known as the Arrival Line, without a pilot. The pilot boards 5 miles SW of North Head.

The pilots and the Port Office can be contacted by VHF and radiotelephone. Vessels calling at Saldanha Bay to load are required to send their ETA 4 days, 48 hours, and 24 hours prior to arrival, stating the vessel's draft and requirements.

Radio reporting stations are situated 11.5 miles NW and 14.5 miles SSW of North Head. Vessels requesting free pratique should cable Port Health, Cape Town via Cape Town Radio (ZSC) at least 24 hours before arrival.

Regulations.—A Vessel Traffic Service (VTS) is in operation to ensure the safe and efficient entry and exit for deep-draft ore vessels to the Port of Saldanha Bay. Radar and VHF radio stations are installed at the PORTNET Office and on Malgaskop (33˚02'S., 18˚56'E.) to improve navigation safety within the Port Control limits. The radars cover a radius of about 20 miles offshore. The VTS System is mandatory for the following vessels:

1. Vessels with an loa of 15m and over.
2. Towing vessels, where the length of the tow is 15m or greater, or the overall length of the tow is 30m or greater.
3. All passenger-carrying vessels.
4. All vessels carrying polluting or dangerous cargo.

The VTS Control Center is situated in the Port Office at Hoedjes Point (33˚01.7'S., 17˚57.8'E.). It operates 24 hours and can be contacted on VHF channel 12 using call sign "Saldanha Bay Port Control."

Vessels must contact Saldanha Bay Port Control on VHF channel 12, as follows:

1. Fifteen (15) minutes before arrival at the TSS.
2. Fifteen (15) minutes before departure from its berth.
3. At the designated Reporting Points (RP).

The following information relating to vessels entering the harbor will be transmitted to the VTS Control Center:

1. Particulars of cargo on board.
2. Last and next port of call.
3. Draft, grt, loa, or any other information as required.

The VTS Control Center will provide the vessel with more accurate information of other vessel’s positions and the density of traffic converging on the same positions.

The VTS System is linked to the Cape Town VTS Center, the Maritime Rescue Coordination Center, the Port Control Office, the Pilot Offices, and the local Coast Radio Station.

Saldanha Bay Vessel Traffic Service—Reporting Points (RP)

Inbound vessels		Outbound vessels		Inshore Traffic Zone	
RP	Position	RP	Position	RP	Position
Approaching from the S		Departing to the S		Inbound vessels from the N	
1B	33˚21.0'S, 17˚53.9'E	5	33˚03.3'S, 17˚58.3'E	1D	32˚53.7'S, 17˚45.9'E
2B	33˚10.6'S, 17˚49.3'E	4	33˚04.1'S, 17˚55.5'E	2D	32˚02.2'S, 17˚50.1'E
3	33˚06.7'S, 17˚50.1'E	3	33˚06.7'S, 17˚50.1'E	4	33˚04.1'S, 17˚55.5'E
4	33˚04.1'S, 17˚55.5'E	2B	33˚11.3'S, 17˚47.1'E	5	33˚03.3'S, 17˚58.3'E
5	33˚03.3'S, 17˚58.3'E	1B	33˚21.7'S, 17˚51.6'E		
Approaching from the N		Departing to the N		Outbound vessels to the N	
1A	32˚59.1'S, 17˚38.2'E	5	33˚03.3'S, 17˚58.3'E	5	33˚03.3'S, 17˚58.3'E
2A	33˚05.9'S, 17˚45.0'E	4	33˚04.1'S, 17˚55.5'E	4	33˚04.1'S, 17˚55.5'E
3	33˚06.7'S, 17˚50.1'E	3	33˚06.7'S, 17˚50.1'E	1D	32˚53.7'S, 17˚45.9'E
4	33˚04.1'S, 17˚55.5'E	2A	33˚04.6'S, 17˚46.8'E		
5	33˚03.3'S, 17˚58.3'E	1A	32˚57.8'S, 17˚58.3'E		

Saldanha Bay Vessel Traffic Service—Reporting Points (RP)					
Inbound vessels		Outbound vessels		Inshore Traffic Zone	
RP	Position	RP	Position	RP	Position
Approaching from the W		Departing to the W		Inbound vessels from the S	
1C(N)	33˚06.8'S, 17˚34.8'E	5	33˚03.3'S, 17˚58.3'E	1E	33˚20.8'S, 18˚01.8'E
1C(M)	33˚13.4'S, 17˚36.3'E	4	33˚04.1'S, 17˚55.5'E	2E	33˚09.1'S, 17˚54.3'E
1C(S)	33˚19.5'S, 17˚43.0'E	3	33˚06.7'S, 17˚50.1'E	4	33˚04.1'S, 17˚55.5'E
2C	33˚09.0'S, 17˚45.3'E	2C	33˚09.0'S, 17˚45.3'E	5	33˚03.3'S, 17˚58.3'E
3	33˚06.7'S, 17˚50.1'E			Outbound vessels to the S	
4	33˚04.1'S, 17˚55.5'E			5	33˚03.3'S, 17˚58.3'E
5	33˚03.3'S, 17˚58.3'E			4	33˚04.1'S, 17˚55.5'E
				1E	33˚20.8'S, 18˚01.8'E

Signals.—Traffic control signal lights are displayed below the Port Control Building on Hoedjiespunt. A green light indicates that vessels are allowed to enter the port and a red light indicates prohibited entry. Signal lights have also been established at the head of the ore loading jetty. There are two similar banks, each having red and green lights. The bank facing seaward controls vessels entering the harbor, while the bank facing the shore controls vessels leaving the harbor: A green light indicates that the channel is clear and a red light indicates that passage through the channel is prohibited.

Anchorage.—Saldanha Bay opens out into an extensive basin, E of a line joining Marcus Island and Elandspunt, providing good and sheltered anchorage. The basin is divided into two parts by the causeway and ore-loading jetty. The NW part is Saldanha Bay Harbor.

Smitswinkelbaai is contained between the curved breakwater extending NE of Hoedjiespunt and Baviaanspunt, about 1 mile NW.

Good anchorage, in mud and sand, may be taken anywhere in Smitswinkelbaai, keeping clear of the sunken wreck 300m NW of the end of the curved breakwater and the prohibited area extending 250m from Government Jetty.

The best anchorage in the SE part of Saldanha Bay is in 11m, about 1 mile ENE of Salamander Point. This is not as well sheltered as Saldanha Bay Harbor and is exposed to the frequent swells which set in, even during SW winds. During strong NW winds, the swell becomes very heavy and a nasty sea can be experienced when the ebb tidal current from Langebaan Lagoon is strong. On these occasions, vessels at anchor often lie broadside to the swell. Vessels should exercise caution when approaching the two mooring buoys anchored 0.5 mile ESE of Salamandar Point, as they are close to the limit of the prohibited area.

Directions.—In making the approach to Saldanha Bay, as in approaching all other places on the W coast of South Africa, the accuracy of the vessel's latitude is very important before approaching the land. In approaching Saldanha Bay at night, or in thick weather, care should be taken to avoid approaching the land N of the bay entrance due to the numerous rocks that lie off this coast.

After embarking the pilot, the vessel should enter the bay between Malgas Island and Jutten Island, passing N of Wasserfall Bank, following the entrance ranges previously described.

Caution.—Submarines exercise frequently in the approaches to Saldanha Bay; a good lookout should be kept when passing through these waters. Extensive cray fishing is carried out in the approaches to Saldanha Bay. Numerous unlit buoys mark the nets and their mooring lines. Vessels are warned not to approach too closely to the coast at the entrance to Saldanha Bay. The foul ground off Malgas Island and Wasserfall Bank are unmarked hazards.

The harbor is occasionally subjected to severe swell conditions associated with weather depressions passing the Cape of Good Hope from W to E. Every depression does not produce a high swell. Conditions in the harbor are influenced by both the height and the direction of the swell outside. Surging can be expected even in the innermost parts of the harbor. A wave monitoring buoy, moored alongside the entrance channel, gives a read-out in the port control building.

Saldanha Bay to Cape Town

5.50 The coast from Saldanha Bay to Cape Town and Table Bay, 50 miles SE, consists of sandy beaches lying between rocky headlands. Few of the bays so formed provide good shelter, with the exception of Table Bay itself, although this coastline is not so rugged as that to the N of Saldanha Bay. There are several off-lying rocks and shoals; a heavy surf generally makes landing difficult.

An eddy current sets S at a distance of 5 miles offshore between Saldanha Bay and Table Bay during the winter months of June, July, and August. At a short distance outside this eddy, the current is almost constant throughout the year. Its general direction is between N and NW, or parallel with the coast, and it attains a velocity of 0.5 to 1 knot, although between Table Bay and Dasseneiland it sometimes exceeds 2 knots. This current should be carefully taken into account, as it has a tendency to set vessels toward the coast, especially during or after strong onshore winds. Reports received from vessels approaching from N indicate that they have not experienced the usual N set when abreast the coast between Saldanha Bay and Table Bay, but a S set, sometimes away from and sometimes toward the coast, has been experienced.

5.51 Stony Head (33˚08'S., 17˚58'E.), 83m high and conspicuous, lies 2 miles SSE of South Head. A reef of rocks,

over which the sea breaks heavily, extends 0.5 mile seaward of Stony Head.

Vondelingeiland, 7m high, lies 0.5 mile offshore, l mile SSE of Stony Head. The island is fringed by reefs; rocks extend 0.2 mile from its W end. A 10.9m patch, which breaks in bad weather, lies 0.5 mile WNW of the W end of the island.

Black Rock, 0.6m high, lies 1.7 miles ESE of Vondelingeiland, and is the outermost rock of a reef extending 0.2 mile offshore. A bulk carrier became stranded on this reef in 1978 and is conspicuous.

The coast from abreast Vondelingeiland to Ysterfonteinpunt, 14 miles SSE, consists of a sandy beach, backed by sand dunes rising to an elevation of 60m in places. These dunes, which are conspicuous, extend inland to a distance of over 1 mile. They are formed by drifting sand, and are extending E over the land.

Caution.—In 1985, a shoal was reported to lie 8 miles SSE of Vondelingeiland and about 5 miles offshore. Vessels are advised to give this position a berth of at least 2 miles.

Ysterfonteinpunt (33˚21'S., 18˚09'E.) has three distinct rocky ledges or points. The N point has a breakwater, 100m long, extending from it. Ysterfontein Hill, a flat conical hill, rises to an elevation of 84m about 1 mile E of the point and is marked by a beacon. A dangerous wreck, marked by a lighted buoy, lies in position 33˚40.3'S, 18˚19.9'E. Meeuwrots (Meeuw Rock), 10m high and whitened with guano, lies 0.3 mile N of Ysterfonteinpunt.

Swartberg, 286m high and surmounted by a beacon, with Betjieskop, 226m high, close by, stands 9 miles NNE of Ysterfonteinpunt, and is easily recognized. Ratelberg, 215m high, is located midway between Swartberg and Slangkop, which is 257m high.

5.52 Dasseneiland (33˚25'S., 18˚05'E.), 5 miles SW of Ysterfonteinpunt, rises to an elevation of 19m and consists of a fine grained, granite outcrop overlaid with sand which, in winter, supports luxuriant vegetation. Dangerous reefs, extending up to l.5 miles offshore, border its N, W, and S sides. A light is shown from a round metal tower, 24m high, and painted in red and white bands standing near the S end of the island; a radiobeacon is situated 0.1 mile E of the light. Dasseneiland is radar conspicuous.

Depths—Limitations.—House Bay lies between Boompunt (Boon Point), the NW extremity of the island, and the NE extremity, 0.7 mile E. Breakers and foul ground extend about 0.2 mile N of both points. A stranded wreck lies off the NE point. There is a flagstaff and jetty at the head of the bay. Depths of less than 5m extend up to about 0.2 mile N from the head of the jetty.

Anchorage.—Small vessels can anchor in House Bay, in a depth 18m, with the flagstaff bearing 173˚, and a conspicuous rock, about 0.2 mile SSE of Boompunt, bearing 247˚. The anchorage is not safe during NW winds. When NW winds prevail, good anchorage can be taken off Waterloo Bay, an indentation in the N part of the E side of the island, in 18 to 25m, sand and mud bottom, about 0.5 mile offshore.

Caution.—West Ledge, 1.2 miles WSW of the light, is always above-water. The Triangles, a group of above-water rocks lying at the SE extremity of an extensive foul area, is located midway between West Ledge and the SW end of Dasseneiland. Roaring Sister, a group of rocks with depths of less than 2m, lies 1.3 miles SSE of the light. South Rock, with a depth of 10.8m, lies 0.2 mile farther S. Between West Ledge and South Rock, there are numerous shoals and several rocks with depths of less than 2m.

South West Breakers, two submerged rocks with least known depths of 9.7 and 10.9m, lie 3 miles SSW and S, respectively, of the SW end of Dasseneiland. Both rocks are steep-to. From the W rock, an irregular bottom in depths of less than 30m extends in the direction of Dasseneiland for about 1 mile. Bad weather causes a confused and dangerous sea in this area, which should be given a wide berth.

Protea Rock, with a depth of 10.9m, lies 5 miles SSW of Dasseneiland. A depth of 18.9m lies 1.7 miles farther S.

Great caution should be exercised in the vicinity of Dasseneiland, especially at night, as the reefs are steep-to and the positions of rocks are not always marked by breakers. With good visibility, no difficulty should be experienced when passing between Dasseneiland and Ysterfonteinpunt. However, in fog, poor visibility, or heavy weather, vessels should pass at least 8 miles W of the island and in depths exceeding 100m.

5.53 The coast between Ysterfonteinpunt and the head of Table Bay is low and sandy, with occasional outcrops, backed by a series of distinctive hill summits. The silhouette of Devil's Peak, Table Mountain, Lion's Head, and Signal Hill, which are all described in paragraph 5.55, provides a remarkable composite backdrop to the harbor of Cape Town.

Rondeberg Breakers, a shoal with a depth of 8.2m and which is usually marked by breakers, lies 8 miles SE of Ysterfonteinpunt, and 2 miles offshore. It lies 4 miles SW of Rondeberg, a coastal hill, 189m high.

The mouth of the the Modder River, 11 miles SE of Ysterfonteinpunt, can be recognized by an extensive sand patch extending N of it. Black Rocks, two small islets, lie close S of the river mouth. A dangerous wreck lies about 2.8 miles NW of Black Rocks.

Bokpunt (33˚34'S., 18˚19'E.) is a low rocky projection lying 5 miles S of the mouth of the Modder River. A rock, with a depth of less than 1.8m and upon which the sea usually breaks, lies 0.5 mile W of the point.

An area containing unexploded ordnance lies 140 miles W of Bokpunt.

A range of mountains, roughly parallel to the coast and between 6 and 10 miles from it, extends 20 miles SE from **Slangkop** (33˚19'S., 18˚16'E.) to Kanonkop (Katzenberg), a well-defined, isolated, conical hill, 418m high, 12 miles E of Bokpunt. Kapokberg, 459m high; Contreberg, 479m high,;and Dassenberg, 567m high, are prominent peaks rising 10 miles NNE, 10.5 miles NE, and 11 miles ENE, respectively, of Bokpunt. Matroospunt, 4 miles SE of Bokpunt, is fringed by rocks and backed by a ridge, 43m high.

The low and sandy coast between Matroospunt and Melkbosch Point, 8 miles SSE, is backed by prominent sand dunes in its central part. Robbesteen, a small seal rookery composed of several rocky ledges up to 2.5m high, lies 0.4 mile offshore, in the N part of this coast.

A patch of submerged rocks lies 0.6 mile NNW of Robbesteen; submerged rocks extend nearly 1 mile SSE of Robbesteen Seal Ledge. Koeberg Nuclear Power Station has

been established on a site 5 miles SSE of Matroospunt. A breakwater extends seaward for almost 0.5 mile and this, together with a shorter breakwater close N, encloses an intake basin designed to supply cooling water to the power station. It is not a harbor for vessels. Both breakwaters exhibit a flashing yellow light at their extremities. The entire complex provides a good radar target.

Caution.—There is a prohibited area extending approximately 1.7 miles seaward and 1.2 miles NW and SE of this basin. Within this area, 0.6 mile offshore, there is a patch of foul ground consisting of the remains of a demolished wave observation tower.

The buildings of the seaside village of Melkbosstrand, close E of Melkbosch Point, are conspicuous from NW. A radio tower, 61m high and marked by red obstruction lights, stands close NE of the village. A submarine cable extends W from Melkbosstrand for 80 miles and then turns in a NW direction. Anchoring or trawling is prohibited within 1 mile of either side of the cable.

Koeberg (Olifantskop), a conspicuous summit, 376m high, lies about 6.5 miles E of Melkbosch Point. Blouberg, a conspicuous dark, rounded hill, 231m high, lies 2 miles SSE of the same point. A large high-rise apartment building is conspicuous at Bloubergstrand, a seaside resort, 4 miles SSE of Melkbosch Point. Voelsteen is the seaward of three above-water rock clusters enclosing two shallow bays which front the village.

Submerged rocks and shoals extend about 0.5 mile NW of Voelsteen. There is heavy surf in the area, except in the calmest of weather.

5.54 Robbeneiland (33˚48'S., 18˚22'E.), 4 miles W of Bloubergstrand, is low, flat, and fringed by reefs. It is fairly densely wooded in parts, particularly along the E shore. During the winter, the more barren W part is covered with vegetation, and in the spring it is covered with wild flowers. A light is shown from a white round tower, 18m high, on the summit of Minto Hill, the highest part of the island, and close to its S end; a radiobeacon is situated at the light. Robbeneiland is radar conspicuous.

The bottom on the E side of Robbeneiland is rocky and uneven, and it is inadvisable for a vessel to anchor closer than 1.2 miles from the shore.

Robbeneiland is now a museum. An area, 1 mile wide, measured from the LW line, in which entry and anchoring are prohibited, has been established around the island.

Whale Rock, 1 mile SSE of Robbeneiland, has a depth of less than 2m, and the sea breaks over it in all but the calmest weather. The currents in the vicinity of this rock are sometimes strong and uncertain in direction. Dangerous submerged wrecks lie 0.9 mile NNW and 0.3 mile SE of Whale Rock; the latter wreck is marked close S by a lighted buoy.

Murray's Bay Harbor, on the NE side of the island, is enclosed by breakwaters. The ferry quay, 244m long, on the inner side of the S breakwater, has depths of 0.9m to 1.5m alongside. Elsewhere in the harbor there are depths of 1.6m to 4m. Lights, in range 297˚30', lead into the harbor. The white tower of the Anglican church 0.3 mile NE of Robbeneiland Light and a flagstaff between the church and Murray's Bay Harbor are conspicuous. Local knowledge is necessary to enter the harbor.

Cape Town (33˚54'S., 18˚26'E.)

World Port Index No. 46770

5.55 Table Bay (33˚51'S., 18˚26'E.) is entered, on the N side, between Robbeneiland and Bloubergstrand, and from W, between Robbeneiland and **Green Point** (33˚54'S., 18˚24'E.), the N extremity of Cape Peninsula. A gently curving sandy coast, backed by low sand dunes, forms the E side of the bay, between Bloubergstrand and the industrial area of Paardeneiland, 7 miles S. Cape Town Docks and the city of Cape Town lie along the SW shore of the bay. The port is one of the largest in the S hemisphere.

There is a helicopter service available for tankers and other vessels not wishing to enter the harbor, or which are unable to do so. This may be used for emergency medical cases, mail, and small items of stores. Vessels requiring helicopter or supply launch service are recommended to heave-to clear of the approaches to the harbor, W of lines running in a NNW and SW direction, shown on the chart, which indicate the E limit of the replenishment area. Vessels should not spend more than 1 hour hove-to in the area. Arrangements should be made through the vessel's agent.

Winds—Weather.—From October to April, the prevailing winds are from SE. From May to September, the prevailing winds are from NW. Low fogs occasionally occur in calm weather, particularly in the autumn and winter. High winds exceeding 60 knots and lasting several hours have occurred in the harbor during the summer.

The worst weather and heaviest swell are normally experienced after the wind has backed, and the swell usually continues for some time after the gale has blown itself out. The heaviest swell comes from the WSW or SW giving rise to the notorious "Cape Rollers" which, coming in on the beam, make it uncomfortable for ships entering or leaving the port on either SE or NW courses.

Tides—Currents.—The tidal rise at Cape Town is 1.6m at springs and 1.1m at neaps. There is no apparent tidal current in Table Bay, but a current, which has been known to reach a velocity of 3 knots, but which is usually 0.5 knot or less, sets N past Robbeneiland during the summer. During the winter months, when NW and W winds occur, a current sets into the bay from NW and impinges on the shore in the vicinity of Paardeneiland. Here it divides, one current setting N along the coast as far as Bloubergstrand, and the other W and NW past the entrance to the docks, then along the shore to Green Point where it turns SW, attaining velocities of up to 2 knots.

Depths—Limitations.—In the vicinity close NNW of Green Point, a sewer outfall extends almost 1 mile NNW from Green Point.

Whale Rock and the shoals off Robbeneiland have been previously described in paragraph 5.54.

A 12.4m patch lies 2 miles WNW of **Milnerton Light** (33˚53'S., 18˚29'E.). A 13.1m shoal lies 0.2 mile SSE of the shoal.

An 11.2m rocky shoal lies 0.6 mile ENE of the head of Cape Town Breakwater and is marked W by a lighted buoy. The SE corner of Table Bay, off Paareneiland, has depths of less than 10m extending up to 0.7 mile off the shore.

Courtesy of Simon Baillie-Cooper

Robbeneiland Light

The approach channel to Cape Town Docks extends in a SSE direction past the head of Cape Town Breakwater, then continues in a S direction. It is dredged continually to maintain the charted depths. Ben Schoeman Dock is entered from the S end of the approach channel and Duncan Dock, SW of Ben Schoeman Dock, is entered from the same channel.

Ben Schoeman Dock is entered between two small breakwaters. The entrance is 200m wide and the main part of the basin has been dredged to a depth of 14m. The inner face of the NE side of the basin, known as Main Quay, is divided into five berths. The outer three berths, each 305m long and having a depth of 13.6m alongside, are container berths. Southeast of the container berths are two bulk berths, with a total length of 456m and depths of 10.2 to 12.6m alongside. The SE side of the basin, known as Cross Quay, contains two container berths, with a total length of 366m and depths of 9.6 to 10.1m alongside. At the SW end of Cross Quay is a 201m long ro-ro pier, with a depth of 9.6m alongside.

Duncan Dock is located SW of Ben Schoeman Dock. It is approximately 1 mile long and 0.4 mile wide, and has over 2.5 miles of alongside berthing. The entrance to the dock, situated near the N end of the dock, is 180m wide. The maximum draft of vessels allowed to enter Duncan Dock is 12m. Such vessels may be accepted provided the tide level is 0.9m or more above chart datum.

There are twelve lettered berths and eight numbered berths. Berth A lies close NW of the dock entrance; the remaining lettered berths continue in a counterclockwise direction to Berth M. There are dredged depths of 9.1 of 12.6m alongside Berth A to Berth L.

Tanker Basin, in the E corner of Duncan Dock, has two tanker berths. Tankers, with a maximum length of 256m and maximum draft of 13.1m, are accepted at Berth No. 1 which, if so occupied, leaves room for a vessel of 204m in length at Berth No. 2. Tankers of up to 350,000 dwt, with a maximum draft of 10.7m, and in ballast, can be accepted for dry repairs, but they must be gas-free before entering harbor. Tankers are not berthed at night.

Alongside Eastern Mole, which has a total length of 518m and maximum depths of 12.7 to 13.7m alongside, Berth No. 1 and Berth No. 2 provide bunkering facilities for vessels of up to 350m in length and up to 130,000 tons displacement. Works

were reported in progress in the vicinity of Eastern Mole in 1992.

Sturrock Graving Dock, on the SE side of Duncan Dock, is 360m long. The width at the entrance is 47.5m at MHWS; the distance below chart datum of the sill and the block is 15.1m.

Victoria Basin, NW of Duncan Dock, has about 2,500m of quayage, with depths of 3 to 10m alongside. The NW sides of Victoria Basin and Alfred Basin are being developed into a waterfront leisure area (1994). There is a shiplift at the SE end of Alfred Basin, for vessels of up to 1,750 dwt, 61m in length, 15m beam, and 6m draft.

Collier Jetty, in the S end of Victoria Basin, has depths of 6.4 to 9.8m alongside, and is used by vessels loading grain by conveyors from the tall storage basins of the conspicuous grain elevator SW.

During the winter months, considerable range action or scend may be experienced at Cape Town Docks.

Aspect.—The silhouette of Table Mountain, as viewed from N, is probably the best known panorama in South Africa. The N face, almost perpendicular and extending for a distance of 1.5 miles, is interrupted by Platteklip Gorge, a steep stony ravine separating Western Table from Eastern Table.

Maclear's Beacon (33˚58'S., 18˚26'E.), at an elevation of 1,085m, is situated on Eastern Table, and is the mountain's highest point. An aerial cableway stretches from a station at an elevation of 500m to the conspicuous Upper Cable Station on the NW edge of Western Table. A quick flashing green light is shown from the roof of the station, 1,045m high, when the cableway is operating at night during the summer months. On clear nights, this may be the first light to be distinguished from seaward.

The Twelve Apostles, a high, serrated mountainous ridge presenting a precipitous face to seaward, extends 4 miles SW from Upper Cable Station and forms the NW face of the Table Mountain complex.

Devil's Peak rises to an elevation of 1,001m about 2 miles E of Upper Cable Station and is connected to the main range by a saddle, 700 to 800m high.

Lion's Head, a steep, conical summit, 667m high, lies 1.5 miles NNW of Upper Cable Station. A ridge extends from Lion's Head in a NNE direction for 1.2 miles to the rounded Signal Hill (Lion's Rump), 350m high.

Devil's Peak, Table Mountain, Lion's Head, and Signal Hill provide a distinctive background to Cape Town Docks and the mushrooming high-rise buildings of the city of Cape Town. Table Mountain is radar conspicuous.

The Tygerberg (Tierberg) range of hills lies 5 miles inland and parallel to the E shore of Table Bay. Two groups of radio masts, each showing flashing red obstruction lights, are established on the highest summit, 414m high, and the S hill, 398m high. A radio microwave tower, 61m high and showing fixed red obstruction lights, is situated near the 455m summit of Kanonberg, 2 miles NE of the highest summit of the Tygerberg range.

Table View, with several large groups of apartment buildings, lies close to the coast, 1.5 miles SE of Bloubergstrand. Rietvlei, a marshy area, lies S of Table View, and flows into Milnerton Lagoon.

Milnerton Light (33˚53'S., 18˚29'E.) is shown from a white, round tower, 23m high, about 3.5 miles S of Table View. By day, on certain bearings, the light is often difficult to distinguish due to the high buildings behind it. Two radio masts, 30m high and marked by red obstruction lights, stand 1 mile ENE of the light.

The large complex of Groote Schuur Hospital, with its conspicuous white, gabled tower, is situated 1.5 miles SSE of Ben Schoeman Dock. Three tall circular apartment buildings are conspicuous 1.5 miles W of Groote Schuur Hospital and appear starkly outlined against the vegetation of the lower slopes of Devil's Peak. Because of the prevalence of industrial haze during days of calm or light winds, these buildings can often be seen clearly above the smog when the buildings of the lower-lying parts of the city are obscured.

Cape Town Dock complex extends 2.8 miles ESE from **Mouille Pointe** (33˚54'S., 18˚25'E.). The South African Merchant Navy Academy is situated on the point.

The approach channel leading to Cape Town Docks is marked by lighted buoys.

The Port Office, 63m high, is conspicuous at the seaward end of South Arm, the wall between Duncan Dock and Victoria Basin. A grain elevator is conspicuous near the inner end of South Arm. Two sets of range lights, in line 131˚30', at the SE end of Ben Schoeman Dock, lead into the dock.

Range lights mark the center of Duncan Dock.

Green Point (33˚54'S., 18˚24'E.), 0.7 mile W of Mouille Point, is marked by a light, shown from a square tower, 16m high, painted in red and white diagonal bands to make it stand out against the predominantly vertical and horizontal lines of the adjacent buildings. However in spite of this, it is often difficult to distinguish. The light is shown from a red dome.

Granger Bay, E of Mouille Point, has the conspicuous buildings of a hospital close S of its head.

Pilotage.—Pilotage is compulsory for merchant vessels when entering, leaving, or shifting berth in the docks area. Vessels should give advanced notice of their ETA to Port Control from a position 10 miles seaward of the breakwater light, using the call sign "Table Bay Port Control" through VHF radio on channel 16, or working channel 12. Pilotage is available 24 hours a day, except for oil tankers and other vessels carrying dangerous cargo, when it is available during daylight hours only.

Pilots should be requested 72 hours in advance and confirmed 1 hour in advance by contacting Port Control on VHF channel 16. The pilot boards 1.5 miles SW of the fairway lighted buoy.

Table Bay Harbor Control is situated in the control center on top of the Port Office. A radar scan of the port area operates in the control center.

Regulations.—A Vessel Traffic Service (VTS) is in operation to ensure the safe and efficient entry and exit to the Port of Cape Town. Radar and VHF radio stations are installed at the PORTNET Office and on Robbeneiland (33˚48'S., 18˚22'E.) to improve navigation safety within the Port Control limits. The radars cover a radius of about 20 miles offshore. The VTS System is mandatory for the following vessels:

1. Vessels with an loa of 15m and over.
2. Towing vessels, where the length of the tow is 15m or greater, or the overall length of the tow is 30m or greater.
3. All passenger-carrying vessels.
4. All vessels carrying polluting or dangerous cargo.

Courtesy of Simon Baillie-Cooper

Green Point Light

The VTS Control Center is situated in the Port Office (33˚54.3'S., 18˚25.9'E.). It operates 24 hours and can be contacted on VHF channel 14 using call sign "Cape Town Port Control."

Vessels must contact Cape Town Port Control on VHF channel 14, as follows:

1. Fifteen (15) minutes before arrival at the TSS.
2. Fifteen (15) minutes before departure from its berth.
3. At the designated Reporting Points (RP), which can best be seen on the chart.
4. Pilot boarding and berthing instructions will be given and vessels will be assigned to an anchorage, if necessary.

The following information relating to vessels entering the harbor will be transmitted to the VTS Control Center:

1. Particulars of cargo on board.
2. Last and next port of call.
3. Draft, grt, loa, or any other information as required.

The VTS Control Center will provide the vessel with more accurate information of other vessel's positions and the density of traffic converging on the same positions.

The VTS System is linked to the Saldanha Bay VTS Center, the Maritime Rescue Coordination Center, the Port Control Office, the Pilot Offices, and the local Coast Radio Station.

Signals.—Port Control Traffic Signals are shown from the control center on top of the Port Office. A red light controls the Ben Schoeman Dock entrance, a green light controls the Duncan Dock entrance, and an amber light controls the Victoria Dock entrance. When a vessel is granted permission to enter any dock, a flashing light will be shown, and when a vessel is given permission to leave, a fixed light will be shown, in the appropriate color. These signals are shown day and night, and may be shown one at a time, or in combinations. No vessel is to enter the prohibited anchorage area when these signals are being exhibited without prior permission from harbor control.

A time signal, from the Cape Observatory, is fired daily at 1000 GMT from a gun battery on Signal Hill.

Anchorage.—Table Bay provides anchorage in convenient depths for numerous vessels, but vessels must remain clear of the prohibited anchorage area extending 2 miles NNW of the head of Cape Town Breakwater, and clear of the disused cable extending from a point on the shore 0.7 mile N of Milnerton Light.

Anchorage should be avoided in an area of uneven ground and shoals, with depths of 6.7 to 10m, lying between 0.4 mile and nearly 1 mile offshore in the vicinity of Milnerton Light. The bottom is foul.

Vessels at anchor in the bay should at all times keep their main engines ready at short notice, and be prepared to put to sea on the approach of winter gales. For the rest of the year, and particularly during the months of December, January, and February, SE winds, which may reach gale force, are to be expected, and vessels are advised to anchor as far to the E as their drafts will comfortably allow.

Vessels are cautioned against anchoring or trawling in the disused explosives dumping area, W of Table Bay, where hulks and explosives exist.

Directions.—After passing W of Dasseneiland, previously described in paragraph 5.52, course should be shaped to pass at least 5 miles W of Robbeneiland Light, keeping well seaward in depths exceeding 50m until passing into the white sector of Milnerton Light. Course should then be altered for the assigned anchorage or the pilot boarding area.

Transiting from N by day should provide no problems provided that Whale Rock and the shoals W of Robbeneiland are given a wide berth. The passage between Robbeneiland and Bloubergstrand is not recommended for large vessels.

Vessels approaching from S should pass **Slangkoppunt** (34˚09'S., 18˚19'E.) at a distance of 5 miles on a course of 000˚. Provided the weather is clear, Robbeneiland Light will then be visible. This course should be maintained until Green Point Light becomes visible on a bearing of 045˚, when course may be altered to steer for Robbeneiland Light, the bearing of which should not be allowed to become less than 027˚. When Green Point Light bears 109˚, course should be altered to bring Milnerton Light ahead, bearing not less than 090˚, then the anchorage or pilot boarding area can be approached. Care should be taken against confusing Green Point and Milnerton Lights when approaching from W, as several near disasters, as well as a vessel's stranding, have been caused by this error.

Vessels should keep to seaward in depths exceeding 50m until **Sea Point** (33˚55'S., 18˚23'E.) is passed, then proceed with caution to the anchorage or pilot boarding area, passing N of the lighted buoy moored 1 mile NNW of Green Point.

Caution.—At night or in hazy weather, vessels approaching the port should always keep their depth sounding and radar sets running. For lack of these precautions, vessels have on occasion run ashore between Green and Mouille Points.

Fogs in this vicinity are often confined to the low ground when Green Point Light becomes obscured, while the elevated ground of Signal Hill and Lion's Head remains clear. In these circumstances, it is advisable to place a masthead lookout, who may see land when it is not visible from the bridge. Vessels underway in Table Bay should, as far as possible, keep clear of the prohibited anchorage area extending NNW of the head of Cape Town Breakwater. This area is required for vessels entering and leaving the docks. Such vessels may have to alter course in order to embark or disembark pilots. In addition, ships' navigation lights are often difficult to distinguish against the bright shore lighting.

During strong SE winds, care should be taken to avoid being set toward the breakwater while approaching the entrance to Victoria Basin. A useful visual reference to the centerline of the Victoria Basin entrance is a very steep road between two blocks of high-rise buildings.

Table Bay to the Cape of Good Hope

5.56 Cape Peninsula extends from Green Point to the Cape of Good Hope, about 28 miles S. It is separated from the high ground to the N and E by a band of low-lying sandy ground, known as Cape Flats, which is 11 miles wide between the head of Table Bay and False Bay.

A series of mountain ranges extends from Table Mountain, past **Constantiaberg** (34˚03'S., 18˚23'E.), 928m high, and **Muizenberg** (34˚06'S., 18˚28'E.), 507m high, to Swartkop, 678m high, S of **Simonstown** (34˚12'S., 18˚26'E.). The series is broken by a low-lying valley extending ESE from Chapmans Bay to Vishoekbaai on the E coast of the peninsula. The valley is visible only on certain bearings. South of Swartkop, a series of lower peaks extends along the E coast as far as the Cape of Good Hope.

From W, Cape Peninsula appears high and rugged from Table Mountain to within 4 miles of the Cape of Good Hope, where the mountain chain terminates in Paulsberg, 369m high and located close to the W shore of False Bay. From Paulsberg to Cape Point, the SE extremity of the Cape of Good Hope, the land is elevated, except for two peaks at its S end, which appear as a saddle-shaped island when seen from a considerable distance.

5.57 From Green Point to Bakoven, 4 miles SSW, the land between the mountains and the sea is densely built over.

Sea Point (33˚55'S., 18˚23'E.), 1.7 miles SW of Green Point, is a low, rocky promontory, with a beacon at its extremity. Sea Point Pavilion, a round tea room with a cupola, about 0.4 mile ENE of the point, provides a good landmark in contrast to the high apartment buildings in the background.

A rock, with a depth of less than 2m, lies 0.2 mile NE of Sea Point. A detached rocky patch, with a depth of 16.1m, lies 1 mile WNW of Sea Point. Saunders Rocks, extending seaward for 0.2 mile close S of Sea Point, have a depth of 3.5m at their extremity.

North Lion's Paw (North Paw), a rock drying 1.5m and steep-to except on its N side, lies 0.5 mile offshore, 0.8 mile SW of Sea Point.

South Lion's Paw, which dries 1m, and with a rock awash lying 0.2 mile W of it, lies 0.5 mile S of North Lion's Paw and about 0.3 mile off the point at the S end of Clifton Bay. Rocky foul ground, in which there is an islet, 10m high, extends from this point nearly to South Lion's Paw. Shoal ground extends about 0.4 mile W of South Lion's Paw. A rock, with a depth of less than 2m, lies in the center of this foul ground. The positions of North Lion’s Paw and South Lion's Paw are normally indicated by swirls or breaking water, even at HW.

5.58 Camps Bay (33˚57'S., 18˚23'E.) is the next indentation S of Clifton Bay. Whale Rock, a large outcrop, 3m high, lies off the S entrance point of the bay. A depth of 11m lies 0.5 mile W of Whale Rock.

Bakovenbaai, close S of Camps Bay, marks what is virtually the S limit of the built-up area stretching from Green Point. Farther SSW the coastline rises comparatively steeply toward the Twelve Apostles. This vicinity is prone to forest fires in summer.

Rocky islets, along with above-water, drying, and submerged rocks, extend up to 0.5 mile offshore between Bakovenbaai and Hottentotshuisiebaai, a small rocky inlet, 2 miles SW. The remains of the wreck of a large tanker lie on the rocky coast close W of Oudekraal. Grootkop, 852m high, 1 mile SE of Oudekraal, is the highest peak of the Twelve Apostles.

Depths of less than 15m extend up to 0.8 mile off the coast between Hottentothuisiebaai and a narrow rocky promontory, a

little over 1 mile SSW, which separates Logiesbaai from Llandudnobaai. A 6.3m rocky patch lies 0.5 mile off this coast. Logiesrots, which breaks in the calmest weather, lies about 250m W of the rocky promontory. A stranded wreck lies 0.5 mile SSW of Logiesrots.

Little Lions Head, 436m high, lies 0.5 mile SSE of Llandudno Bay and SW of the Twelve Apostles.

Oude Schip (34˚02'S., 18˚19'E.), 1.7 miles SW of Llandudnobaai, is a cluster of large boulders, almost surrounded by water, and surmounted by a beacon with an elevation of 16m. Foul ground, over which the sea nearly always breaks heavily, extends about 0.3 mile N and 0.5 mile W of Oude Schip. Die Middlemas, a rock 4.5m high, lies 0.2 mile W of Oude Schip. A dangerous wreck lies in the bay, 0.3 mile S of Oude Schip.

5.59 Duikerpunt (34˚02'S., 18˚18'E.), the W extremity of Cape Peninsula, lies 0.7 mile SSW of Oude Schip. It is a bold headland, rising to the 653m summit of Karbonkelberg, 1 mile E. Foul ground, with several above-water rocks, extends 0.4 mile W and 0.5 mile S of the point. Duikerpunt is radar conspicuous.

There is a stranded wreck on the S side of the bay 0.2 mile N of Duikerpunt. A bank, with a depth of 128m, lies 43 miles W of Duikerpunt.

Vulcan Rock, which dries 0.9m and is always marked by breakers, lies 1.5 miles S of Duikerpunt. Tafelberg, a rocky patch, with a least depth of 7.6m over it and which breaks in heavy weather, lies 0.4 mile SE of Vulcan Rock. It is possible that shallower depths exist.

Hangberg (The Sentinel), a remarkable hill, rises to an elevation of 331m about 1.3 miles SSE of Karbonkelberg and appears to overhang when viewed from E. Badtamboer, the W entrance point of Houtbaai, lies close S of Hangberg. Duikereiland, a flat rock, 2.7m high, lies 0.5 mile W of Hangberg, and close off a small rocky projection of similar formation.

An area of foul rocky ground with much kelp surrounds Duikereiland, extending 0.4 mile SW of the coast in the vicinity. A line of breakers extends 0.3 mile SW from the island. A depth of 7.6m lies 0.6 mile WNW of the island.

Houtbaai

5.60 Houtbaai (34˚03'S., 18˚21'E.) is entered between Badtamboer and Die Josie, a rocky point 1.2 miles SE. The coast on each side of the entrance to the bay is high and rugged, particularly on the E side, where hills rise precipitously and are separated by ravines. The head of the bay is low and sandy. A wreck, with a depth of 13.2m, lies in the entrance to the bay, 0.4 mile ESE of Badtamboer. A shoal, with a depth of 15.2m, lies in position 34˚04'S, 18˚21'E.

Constantiaberg (34˚03'S., 18˚23'E.), 928m high, lies 2.2 miles E of Hangberg. A radio mast, 148m high, painted in red and white bands, is conspicuous near the summit of Constantiaberg. It is marked by three red air obstruction lights, displayed vertically.

York Point, 0.5 mile NE of Badtamboer, is a low-lying point, fringed by boulders. Foul ground, consisting of above-water, drying, and submerged rocks, extends about 0.1 mile SE from a point close SSW of York Point.

A modern fishing harbor, sheltered by breakwaters, lies close N of York Point. Fishing factories, lighted at night, lie on the S side of the harbor. A wharf, extending NW from the inner side of the S breakwater, can accommodate trawlers up to 43m in length. Depths alongside are 4.5m on the N side and 5.4m on the S side.

Good sheltered anchorage may be obtained in Houtbaai, with excellent holding ground of soft sand. Anchorage in the harbor entrance should be avoided. Although the bay is open SW, strong winds, apart from occasional short-lived squalls, seldom occur from this quarter. When the Southeaster is blowing, squalls, variable in direction, sweep down from off the high ground, increasing after a few hours and setting up a very unpleasant short choppy sea. Under these conditions vessels at anchor should, if possible, enter the harbor where the surface of the sea is always unbroken, otherwise they should sail to sea, proceeding S to Chapmans Bay, where the wind will probably be less violent and will become more S in direction. Any anchorage in Chapmans Bay should be considered temporary because of poor holding ground.

5.61 Chapmans Point (34˚05'S., 18˚21'E.), 1 mile SSW of Die Josie, rises steeply E to Chapmans Peak, 593m high, and the S summit of the range extending from Constantiaberg. Another peak, 547m high, lies 0.3 mile NNE of Chapmans Peak. When viewed from the W, these two peaks present a dark appearance of apparently equal height.

Ratelklip, a reef lying 0.4 mile S of Chapmans Point, extends 0.2 mile seaward. The sea always breaks heavily over this reef and also over the foul ground extending 0.3 mile W of Chapmans Point.

Chapmans Bay, between Chapmans Point and Klein-Slangkoppunt, 2 miles SSW, provides no safe anchorage. The sandy beach at the head of the bay is backed by swampy ground in which there are lagoons and salt pans.

5.62 Slangkoppunt (34˚09'S., 18˚19'E.), 1.5 miles SW of Klein-Slangkoppunt, lies at the foot of the high ground which rises to the S of the low-lying valley extending from Chapmans Bay to Vishoekbaai. When seen from the N, the point appears as a long, flat plateau. Rocks and patches of kelp fringe the point, and foul ground between it and Klein-Slangkoppunt extends NW for about 1 mile.

Slangkoppunt Light (34˚05'S., 18˚21'E.) is shown from a white round tower, 33m high, which is conspicuous against the dark background of the hills behind it. The coast from Slangkoppunt to Cape Point, 15.5 miles SSE, is generally rocky, with numerous small indentations and sandy stretches backed at first by high mountain ranges, then by a series of smooth rounded hills, and finally by the steeper peaks at the Cape of Good Hope. Within depths of less than 50m, which extend up to 4 miles offshore, the bottom is generally uneven with a series of rocky shoals.

A wave-measurement buoy is moored 3.8 miles SSW of Slangoppunt. There is a restricted area around it, which is shown on the chart.

The coast between Slangkoppunt and Die Eiland, 2.5 miles SE, is rocky and much encumbered with off-lying kelp. Die Eiland is a rocky, boulder-strewn point, upon which the brick

buildings of a rock lobster factory stand near the water's edge. A radio mast, 85m high, stands on the point.

Sandkop, 0.5 mile NNW of Die Eiland, is 121m high, and conspicuous because of a sand patch near its extremity on its NW side. Another more extensive sand patch extends from the S side of the hill almost to the rocky shore. A range of hills runs parallel to the bight in the coast between Die Eiland and Schuster's Bay, 2 miles SE. Platkop, 371m high, and Platberg, 308m high, are prominent summits in the range. Rocky shoals lie within depths of 30m in this vicinity.

A least depth of 13.4m lies a little over 1 mile W of Die Eiland; a depth of 18.2m lies about 1.5 miles W of Schuster's Bay. Vessels are advised to keep in depths of over 50m when passing these shoals and also off Hoek van Bobbejaan, farther S.

The Cape of Good Hope Nature Reserve, at the S tip of Cape Peninsula, has a coastline extending from Schuster's Bay, rounding Cape Point, to Smitswinkelbaai on the E coast of the peninsula. Bonteberg, 227m high, 1 mile SSE of Schuster's Bay, is the highest hill in the NW part of the reserve, and is conspicuous from SW by virtue of the bluff slope on its W side.

The low-lying valley of Kromrivier lies S of Bonteberg. The river flows into a long narrow lagoon, separated from the sea by a low and sandy strip. Submerged rocks, encumbered with kelp, extend about 0.5 mile seaward of the sandy strip and off the coast as far as Olifantspunt, 2 miles S. Depths of less than 15m extend 1 mile seaward of the S end of the sandy strip, enclosing a least depth of 11m about 0.8 mile offshore.

Olifantsbospunt (Olifantbos Point) (34˚16'S., 18˚23'E.), a rocky promontory, may be readily identified by a wreck, in three parts, which stands out conspicuously against the sandy beach inshore of the rocks. Albatrosrots (Albatross Rocks), a group of submerged rocks over which the sea occasionally breaks, lies 0.6 mile WSW of Olifantsbospunt.

5.63 **Hoek van Bobbejaan** (34˚19'S., 18˚24'E.), another rocky headland, lies 2.5 miles SSE of Olifantspunt. Foul ground extends 0.2 mile seaward from the point. An extensive rocky bank, with depths of less than 30m extends about 3.5 miles WNW from Hoek van Bobbejaan, then 2 miles S to a position W of the headland, and then in an ESE direction towards South West Reefs. There are several shoals with depths of 15m or less toward the W edge of the bank, the least depth being 13m, nearly 3 miles W of Hoek van Bobbejaan. In bad weather, during S gales, the sea breaks heavily over these shoals, and a confused sea extends from them to the coast. Vessels passing these shoals are advised to keep in depths exceeding 50m.

The coast between Hoek van Bobbejaan and Cape Maclear, 4.5 miles SE, is generally rocky, with off-lying submerged rocks. The Groot Blouberg range of hills runs parallel to this section of the coastline, its highest summit being Kommetjieberg, 116m high, about 0.7 mile SE of Hoek van Bobbejaan. Between this range and the peaks at the extremity of the Cape of Good Hope, the height of the ground is less than 100m.

Platboom Bay lies between Platboom Point, 2.5 miles SE of Hoek van Bobbejaan, and Pegrams Point, 1 mile further ESE. The Island, a reef of drying rocks, lies 0.2 mile W of Platboom Point.

Cape of Good Hope

5.64 The Cape of Good Hope, at the S extremity of Cape Peninsula, resembles a ballet dancer's foot, with **Cape Point** (34˚21'S., 18˚30'E.), the pointed toe, stretching E, and the rounded Cape Maclear, about 1.2 miles W, as the heel.

There are two peaks on the Cape of Good Hope. Vasco de Gama Peak, 262m high, lies 1.2 miles WNW of Cape Point. The SE peak, 243m high, lies 0.4 mile WNW of the same point.

Cape of Good Hope Light is shown from the extremity of Cape Point, at an elevation of 87m from a square masonry tower, 9m high. A fixed red light is shown from the base of the light structure at an elevation of 77m. A radiobeacon is situated at the old light, best seen on the chart, and a continuous watch is kept at the signal station situated there. Two radio masts, 31m high, are situated in the vicinity.

An extensive rocky bank, with depths of less than 30m, lies off the Cape of Good Hope, and extends 2 miles W and SW of Cape Maclear, and about 2 miles S and l.5 miles SE of Cape Point. Except during the calmest weather, the sea breaks over the entire area. South West Reefs are patches on a rocky ledge extending about 1 mile SW of Maclear Point. The least depth of 4.8m lies 0.6 mile off the point. The sea generally breaks over these reefs.

Bellows Rock, which dries 1m, lies 2 miles SSW of Cape Point. The sea always breaks over it, and its position can easily be seen in fine weather. Vessels may pass a distance of 0.5 mile S of it. However, on moonless nights, during foul weather, and in poor visibility, vessels should keep well clear. Anvil Rock, with a depth of 3.9m, lies 1.2 miles SE of Cape Point. Close W of it there is a rocky bank, with a least depth of 8.2m. The sea does not break over Anvil Rock unless there is a heavy swell running, when it will probably do so at LW.

Dias Rock, 2.5m high, lies 0.1 mile SSE of Cape Point, at the seaward end of a submerged reef. Three patches with pinnacle rocks, with depths of 9.7, 10, and 13.4m, lie between Dias Rock and Anvil Rock. These patches, together with the generally irregular nature of the bottom, render passage between the above rocks hazardous for deep-draft vessels, but small vessels with local knowledge may use it with advantage, provided the weather is good.

Rocky Bank, an extensive shoal area, lies between 4.5 and 6.5 miles SE of Cape Point. It has a least depth of 21.5m, about 6 miles SE of the point.

Directions.—Laden tankers should not approach the coast within a distance of 25 miles. See Pub. 160, Sailing Directions (Planning Guide) South Atlantic Ocean and Indian Ocean for further information.

In clear weather, a vessel approaching the Cape of Good Hope from NW by day should keep well seaward of the shoal water off Hoek van Bobbejaan and South West Reefs. After passing these shoal areas, alter course to pass not less than 0.5 mile S of Bellows Rock. An E course should then be maintained, keeping in depths of more than 50m, until Constantiaberg radio tower (34˚03'S., 18˚23'E.), bearing between 337˚ and 339˚, is well open E of Swartkop (34˚13'S., 18˚27'E.). The vessel will then be clear of Anvil Rock and course may be altered N. When Vasco de Gama Peak, bearing 299˚, is open N of Cape of Good Hope Light, Anvil Rock will

have been passed abeam. At night a vessel should keep in depths of more than 50m while in the red sector of Cape of Good Hope Light.

In clear weather, a vessel approaching from W by night, should sight Cape of Good Hope Light at a distance of not less than 23 miles, provided it is not obscured by land on a bearing of 106˚ or more, in which case Slangkoppunt Light should be seen at a distance of not less than 17 miles. On approaching land by day or night, proceed as described in the previous paragraph.

In thick weather, by day or night, if the land or lights are not sighted, a vessel should not approach the coast, but should keep in depths of more than 100m until such time as the vessel's position has been ascertained. If necessary, a vessel should pass E of Rocky Bank.

A vessel approaching land should, in addition to obtaining soundings, make full use of its radar and electronic navigation systems.

Caution.—Submarines exercise frequently off the S coast of South Africa and in the approaches to False Bay, N of 36˚S and between 16˚ and 20˚E.

During the season, from November 1 until June 30, intensive cray fishing takes place in the area up to 4 miles offshore between Slangkoppunt and Cape Point, and occasionally over Rocky Bank, 6 miles SE of Cape Point. Trap buoys are brightly colored, and the fishing area is marked by buoys with white flashing lights. Vessels are strongly advised to keep 5 miles off the coast in this area and clear of Rocky Bank.

Explosives dumping grounds are centered 15 and 45 miles SSW of the Cape of Good Hope. Each dumping ground is a circular area with a radius of 5 miles. The N of these areas is no longer used.

Explosives have been dumped in an area, with a radius of 1 mile, lying centered 6.2 miles SSW of Cape Point Light.